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ABSTRACT

The reports comprising the document are from the State directors of vocational education, the National Advisory Council on Vocational Education, and the State Advisory Councils on Vocational Education. The reports from the State directors form Part 1, the largest part of the document, presenting the most comprehensive and detailed information on the implementation of the Vocational Education Amendments of 1968 in each of the States and in the other jurisdictions. The reports vary in length, but most are about 10 pages long. A brief introduction and general description of each State's program is followed by specific information, often accompanied by illustrative tables. Topics typically covered in outline include: post-secondary courses; disadvantaged, handicapped, and adult students; financing; exemplary programs and projects; residential vocational education; consumer and homemaking education; work study programs; research and training; and the State advisory council. A summary and recommendations conclude each report. The 1972 Annual Report of the National Advisory Council is in Part 2 of the document. An analysis of the reports of the State advisory councils for 1972 comprises Part 3. The analysis, prepared by the staff of the National Advisory Council, lists the components of each of the State reports by subject area. (AJ)

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CE 003 434

[COMMITTEE PRINT]

REPORTS ON THE IMPLEMENTATION OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968

GENERAL SUBCOMMITTEE ON EDUCATION

OF THE

COMMITTEE ON EDUCATION AND LABOR
HOUSE OF REPRESENTATIVES

VOLUME 1

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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FOREWORD

In November, 1971, the General Subcommittee on Education published a volume entitled, "Reports on the Implementation of the Vocational Education Amendments of 1968." That volume documented the changes which had occurred in vocational and occupational education since the enactment of Public Law 90–576. Its publication was well received by the education community and proved to be very useful to researchers, educators, and the public at large. The subcommittee, therefore, in continuing to fulfill its responsibility to oversee the administration of Federal education programs, has decided to compile a second volume containing current information on vocational and occupational education in every State, the District of Columbia, the Virgin Islands, and Puerto Rico.

This volume will again include reports from the State directors of vocational education, the National Advisory Council on Vocational Education, and the State advisory councils on vocational education. The reports from the State directors of vocational education are contained in part I, since these reports present the most comprehensive and detailed information on the implementation of the Vocational Education Amendments of 1968 in each of the States and in the other jurisdictions. The subcommittee is indebted to the State directors for the time and energy which they obviously expended in preparing their reports especially for this volume.[1]

The 1972 Annual Report of the National Advisory Council on Vocational Education is contained in part II of this volume. The subcommittee continues to be impressed by the work of the National Advisory Council and its staff.

An analysis of the reports of the State advisory councils on vocational education for fiscal year 1972 comprises part III. That analysis, which was prepared by the staff of the National Advisory Council on Vocational Education, lists the components of each of the State reports by subject area. A comparison of these State reports with the State reports contained in the subcommittee's 1971 publication shows clearly that many State advisory councils have grown to be perceptive, independent evaluators of the vocational education programs within their States.

There is no question that the Vocational Education Amendments of 1968 have provided new opportunities for many youngsters and adults. In our first report, we indicated that while great strides had been made in vocational education since 1968, a great deal remained to be accomplished. While this new volume clearly shows that progress is continuing to be made in vocational education, it also shows us how far we are from achieving our goal of securing for every American citizen an opportunity for vocational or occupational training in secondary schools, in post-secondary institutions, or in other institutions.

CARL D. PERKINS,
Chairman, General Subcommittee on Education.
Chairman, Committee on Education and Labor.

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[1] See appendix for the outline which we requested the State directors to follow in preparing their reports. (See p. 1460.)

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PART I

STATE DIRECTORS OF VOCATIONAL EDUCATION REPORTS

ALABAMA

State Director—T. L. Faulkner

INTRODUCTION

Vocational education in the State of Alabama has experienced a 62 percent increase in enrollment between fiscal year 1963 and fiscal year 1972. Between 1963 and 1968, a 23 percent increase in enrollment was realized, and between 1968 and 1972 a 32 percent increase was attained. The continued significant growths in enrollments evidence the increasingly important roles that vocational education is playing in Alabama's public education. Unfortunately, these percentages report only those persons enrolled in classes for which the local agency receives reimbursement from Federal and/or State funds. We cannot, as was requested, report the courses funded from local resources only, but will in the future be able to supply these data as we have just this year implemented a procedure which will report these enrollments. The following table evidences the data upon which the above growth percentages were calculated.

TABLE I.—TOTAL ENROLLMENT IN REIMBURSED VOCATIONAL EDUCATION COURSES[1]

	1963				1968			
	Secondary	Postsecondary	Adult	Total	Secondary	Postsecondary	Adult	Total
Agribusiness	20,802	0	16,524	37,326	25,824	0	12,675	38,499
Distribution	658	0	163	821	2,243	142	2,594	4,979
Health	0	533	1,326	1,859	567	1,216	806	2,589
Consumer homemaking	29,298	0	12,710	42,008	35,989	0	1,665	37,654
Occupational home economics	0	0	0	0	1,006	0	1,951	2,957
Office	0	0	0	0	6,363	1,565	2,539	10,467
Technical	169	527	817	1,513	232	1,101	632	1,965
Trades and industrial	6,212	0	13,301	19,513	6,282	7,399	13,763	27,444
Special programs	0	0	0	0	0	0	0	0
Total	57,139	1,060	44,841	103,040	78,506	11,423	36,625	[2]126,554
	1972				(1977 projected)			
Agribusiness	30,387	130	16,672	47,186	38,601	130	21,216	59,947
Distribution	3,460	694	4,642	8,796	6,542	1,312	8,777	16,631
Health	886	1,910	80	2,876	1,037	2,235	93	3,365
Consumer homemaking	41,215	0	882	42,097	46,735	0	1,000	47,735
Occupational home economics	3,334	201	2,028	5,563	7,791	470	4,739	13,000
Office	9,691	3,218	3,536	16,445	14,349	4,765	5,236	24,350
Technical	0	806	41	847	0	367	19	386
Trades and industrial	12,513	12,792	16,574	41,879	19,858	20,302	26,304	66,464
Special programs	619	102	88	809	1,001	212	100	1,313
Total	102,102	19,853	44,543	166,498	135,914	29,793	67,484	233,191

[1] Includes enrollment in courses funded from Federal and State resources; no data available on courses funded from local resources.

[2] Does not include 1,300 students with special needs.

PUBLIC LAW 90–576, PART B

Job Training Enrollments

Data were not available for enrollments related to specific job training for fiscal year 1963. However, as table II reflects, job training enrollments have also significantly increased during the years since enactment of the 1968 amendments. Specifically, Alabama has posted a 36-percent increase up to 1972, and projects a 104-percent increase over fiscal year 1968 by fiscal year 1977.

General Description

No part B moneys have been expended in Alabama for the development of Federal job training for youth and adults other than those reported in table II. However, in these programs, 98 distinct OE codes are offered. The breakout by vocational service of numbers of OE coded occupations offered are as follows:

Agribusiness	11
Distributive	19
Health	14
Occupational home economics	5
Office	5
Trades and Industrial	44

In addition the technical schools (postsecondary) offer 44 distinct occupational areas.

Postsecondary Courses

Ten years ago Alabama had 11 State technical Institutes and no State junior colleges. By 1972, however, the State was sporting an additional 16 technical institutes and 18 junior colleges. Enrollments supported through part B of the act are reported on table III. This table reflects a 74-percent increase in enrollment during the period from 1968 to 1972. No additional part B money is anticipated for junior colleges; however, with the initiation of extended day and evening programs it is projected that by 1977 Alabama's postsecondary institutions will have realized a 161-percent increase in occupational enrollment over its 1968 figure.

TABLE II.—JOB TRAINING ENROLLMENTS SUPPORTED IN WHOLE OR IN PART BY PART B MONEYS [1]

	1968 [2]			1972			1977 (projected)		
	Secondary	Post secondary	Adult	Secondary	Post secondary	Adult	Secondary	Post secondary	Adult
Agribusiness	25,824	0	12,675	29,682	130	16,325	38,022	130	20,962
Distribution	2,243	142	2,594	3,027	694	4,642	6,163	1,312	8,742
Health	567	1,216	806	812	1,910	80	998	2,235	93
Occupational home economics	1,006	0	1,951	2,873	201	2,028	6,622	470	4,739
Office	6,363	1,565	2,539	9,230	3,218	3,536	13,904	4,765	5,236
Technical	232	1,101	632	0	806	41	0	367	19
Trades and industrial	6,282	7,399	13,763	11,861	12,792	16,504	18,825	20,302	26,067
Special programs				691	102	88	1,001	212	100
Level totals	42,517	11,423	34,960	58,206	19,853	43,244	85,535	29,793	65,958
Grand totals		88,900			121,303			181,286	

[1] Data is not available breaking out State versus part B supported enrollees.
[2] Does not include 1,300 students with special needs who could not be broken out by level.

NOTE.—Part B data not applicable to 1963.

TABLE III.—POSTSECONDARY ENROLLMENTS SUPPORTED IN WHOLE OR IN PART BY PART B MONEYS

	1968		1972			1977 (projected)		
	Junior colleges	Technical institutes	Junior colleges	Technical institutes	Other institutions	Junior colleges	Technical institutes	Other institutions
Agribusiness	0	0	130	0	0	130	0	0
Distribution	0	142	694	0	0	694	618	0
Health	0	1,216	373	1,512	25	373	1,832	30
Occupational home economics	0	0	183	18	0	183	287	0
Office	0	1,565	105	3,113	0	105	4,660	0
Technical	0	1,101	0	806	0	0	367	0
Trades and industrial	0	7,399	16	12,739	37	16	20,240	46
Special programs	0	0	0	102	0	0	212	0
Column totals	0	11,423	1,501	18,290	62	1,501	28,216	76
Grand totals		11,423		19,853			19,793	

NOTE.—Part B data not applicable to 1963.

Disadvantaged Students

Table IV reflects the numbers of disadvantaged students enrolled by vocational service areas and the respective percentages of the total enrollments for each. Progress toward the improvement of instruction for the disadvantaged can be enumerated as follows:

1. A handbook for working with the disadvantaged student setting out the intent of Congress has been written and distributed statewide;
2. A teacher's curriculum guide with emphasis on placement has been written for teaching and evaluating disadvantaged students;
3. A pilot program for working with disadvantaged students has been conducted, field tested and implemented;
4. Special summer programs for teachers working with the disadvantaged student have been initiated;
5. Areas of high concentrations of disadvantaged students have been identified;
6. Two statewide in-service workshops have been held for vocational education teachers concentrating in the areas of planning and conducting experiences and activities for disadvantaged students.
7. Identification procedures, problem areas, and additional services for disadvantaged students have been developed; and
8. Eight district workshops have been held for vocational education teachers having summer programs for the disadvantaged.

Handicapped Students

Table V reflects the numbers of handicapped students enrolled by vocational service areas and the respective percentages of the total enrollments for each. Progress toward the improvement of instruction for the handicapped can be enumerated as follows:

1. A statewide evaluation of handicapped programs has been conducted in order to upgrade programs to meet the needs of the students;
2. Workshops have been held with the State staff to discuss progress for the handicapped and responsibilities of different divisions at the State level;

TABLE IV.—DISADVANTAGED STUDENTS SERVED UNDER PART B OF THE ACT[1]

	1968		1972		1977 (Projected)	
	Number served [2]	Percent of enrollment	Number served	Percent of enrollment	Number served	Percent of enrollment
Agribusiness	1,245	3.23	5,701	12.08	7,305	17.18
Distribution	55	1.10	462	5.25	896	5.39
Health	0	0	0	0	325	9.66
Consumer homemaking	23	.06	(3)	0	(3)	0
Occupational home economics	0	0	1,185	21.30	2,748	21.14
Office	118	1.13	3,057	18.59	4,572	18.78
Technical	0	0	0	0	0	0
Trades and industrial	250	.91	1,173	2.80	1,858	2.80
Special programs	0	0	0	0	316	24.07
Total	1,691		11,578		18,020	

[1] See table I for total enrollment by year.
[2] Disadvantaged and handicapped enrollments both included. No data were available relative to the number in each category under 1968 reporting procedures.
[3] Served under Part F.

NOTE. Part B data not applicable to 1963.

TABLE V.—HANDICAPPED STUDENTS SERVED UNDER PART B OF THE ACT[1]

	1968		1972		1977 (Projected)	
	Number served [2]	Percent of enrollment	Number served	Percent of enrollment	Number served	Percent of enrollment
Agribusiness	1,245	3.23	617	1.31	790	1.32
Distribution	55	1.10	34	.39	55	.40
Health	0	0	0	0	0	0
Consumer homemaking	23	.06	(3)	0	(3)	0
Occupational home economics	0	0	973	17.49	2,256	17.35
Office	118	1.13	31	.19	46	.19
Techincal	0	0	0	0	0	0
Trades and industrial	250	.91	351	.83	556	.84
Special programs	0	0	0	0	0	0
Total	1,691		2,006		3,714	

[1] See table I for total enrollment by year.
[2] Disadvantaged and handicapped enrollments both included. No data were available relative to the number in each category under 1968 reporting procedures.
[3] Served under part F.

NOTE.—Part B data not applicable to 1963.

3. A cooperative agreement between the divisions of vocational rehabilitation, exceptional children and youth, and vocational-technical and higher education has been entered into; and a very active working relationship has been implemented at both the State and local level;

4. Statewide workshops with vocational rehabilitation conselors, special education teachers, and vocational education teachers have been successfully conducted with others planned;

5. Additional programs have been implemented for meeting the needs of industry through employing handicapped adults; and

6. A handbook for working with the handicapped students setting out the intent of congress has been written and distributed Statewide.

Adults

During fiscal year 1970, the first year for which complete descriptive records were kept, vocational education in agribusiness was provided for 18,499 adults by 369 teachers. These programs were conducted by teachers on their own time without additional pay. In that same year business and office education programs were provided in 24 of the 67 counties. One hundred forty-three teachers taught

7,825 adults. Most of the business and office programs during this year were in the larger cities. In 1970 more than 50 percent of the enrollees in distributive education were out-of-school youths or adults. During this same year occupational home economics programs served 2,950 adults. The occupational home economics programs were offered mainly in urban areas for training and/or upgrading workers in school food service programs, hospital and nursing home food service departments, child care centers and kindergartens, garment factories, and alteration departments in dry cleaning establishments and department stores. During fiscal year 1970, 568 classes were conducted in trade and industrial education and health occupations education serving 15,023 adults.

During fiscal year 1971 more than 41,000 adults were provided with preparatory or supplementary education. Programs were available in rural and urban areas. During this year, a new statewide program of industrial development training was initiated. Working in close conjunction with the State technical institutes and the Alabama development office, the industrial development training program has made Alabama very competitive by providing individually-tailored training programs for new and expanding industry.

During fiscal year 1972 the enrollment in adult vocational programs (preparatory, supplemental, and apprenticeship) totaled 43,244. Agribusiness teachers (378) enrolled 16,325 (2,488 disadvantaged; 138 handicapped including adults). Office education programs were provided in 20 of the 67 counties constituting 138 programs enrolling 3,536 adults.

Adult education for updating and upgrading health workers during fiscal year 1972 included workshops, seminars, lectures, and formally organized classes. The trend for continuing education units as a requirement for relicensure or recertification will continue to cause increases in the number of adult health occupations programs. Full-time distributive education secondary teachers provided continuing education to 4,642 adults.

At the present time Alabama is engaged in the development of a comprehensive adult vocational education program. This program will be implemented primarily through the secondary schools using the growing network of area vocational centers throughout the State. Table VI reports adult enrollments.

TABLE VI.—ADULT ENROLLMENTS SERVED UNDER PART B OF THE ACT[1]

	1968			1972			1977 (projected)		
	Preparatory	Supplemental	Apprenticeship	Preparatory	Supplemental	Apprenticeship	Preparatory	Supplemental	Apprenticeship
Agribusiness	0	12,675	0	0	16,325	0	0	21,331	0
Distribution	263	2,331	0	758	3,884	0	990	5,075	0
Health	117	689	0	0	80	0	0	105	0
Occupational home economics	404	1,547	0	0	2,028	0	0	2,650	0
Office	1,168	1,371	0	1,752	1,784	0	2,289	2,331	0
Technical	48	570	14	0	41	0	0	54	0
Trades and industrial	1,114	11,078	1,571	184	14,509	1,811	240	18,958	2,366
Special programs	0	0	0	0	88	0	0	115	0
Column totals	3,114	30,261	1,585	2,694	38,739	1,811	3,519	50,619	2,366
Grand totals		34,960			43,244			56,504	

[1] No data available as to the number of adults in these programs who are unemployed or employed. Part B data not applicable to 1963.

Financing

Method of Fund Distribution.—Part B moneys are allocated based upon a formula applied at the time of application for vocational education teacher units. Local education agencies submit their applications to the State board through the State superintendent and State director of vocational education. An application contains the following information: Statement of assurances; separate forms for each of the seven program areas offered by the division; requests for continuation of existing units; requests for approval of new and transfer units; number of units existing by level; number of new and transfer units requested by level; enrollment data; facility data; and manpower needs data. In determining the amount of funds to which each local agency is entitled the local agency's proportionate student enrollment based on the State total is applied to the number of vocational units to be funded for a given academic year. This figure is then adjusted based upon the economic index (relative ability to pay) of the county in which the local agency is located.

The six factors used in calculating the economic index are as follows: Sales tax; automobile licenses; assessed valuation of public utilities; personal State income tax; value added by manufacturing; and value of farm products.

Physically and mentally handicapped funds are allocated on the basis of the number of students qualified for these funds within the area served. A proportionate share of the handicapped set-aside to be expended by county based upon the percentage of identified students residing in each county is calculated annually.

Disadvantaged funds are allocated on the basis of the number of students qualified for these funds within the area served. A proportionate share of the disadvantaged set-aside to be expended by county based upon the percentage of identified students residing in each county is calculated annually.

Federal funds are allocated to local education agencies by the State board on the basis of one dollar of State and local funds expended for each dollar of Federal funds expended. This allocation procedure pertains to programs, services, and activities under part B of the act for persons in high school, persons who have completed or left high school, persons who have already entered the labor market, disadvantaged persons, and handicapped persons. The exceptions are that local educational agencies are not required to match Federal funds at a uniform percentage ratio throughout the State and the Federal share is 100 percent for programs for disadvantaged persons funded under section 102(b) of the act in areas of high concentration of youth unemployment and/or school dropouts.

Breakdown of Dollar Amounts.—Table VII displays the number of dollars received by cities whose population exceeds 250,000 and by poor rural areas of the State; the percent of the total amount of each funding source; and the percent of the State population residing in each identified area.

TABLE VII.—BREAKOUT OF DOLLAR AMOUNTS AND PERCENTAGES OF FEDERAL AND STATE FUNDS TO CITIES WITH OVER 250,000 POPULATION AND TO POOR RURAL AREAS OF THE STATE

Cities with over 250,000 population	Total Federal funds budgeted	Percent of Federal funds	Total State funds budgeted	Percent of State funds	Grand total budgeted (1) + (3)	Percent of total funds	Percent of State population[1]
	$9, 934, 854. 95		$12, 360, 670. 72		$22, 295, 525. 67		
Birmingham City	480, 718. 38	4. 84	618, 164. 00	5. 00	1, 098, 882. 38	4. 93	8. 7
Poorest rural areas:[2]							
Bullock County	69, 770. 31	. 70	0	0	69, 770. 31	. 31	. 3
Greene County	104, 541. 90	1. 05	0	. 00	104, 541. 90	. 47	. 3
Hale County	43, 057. 48	. 43	66, 000. 00	. 53	109, 057. 48	. 49	. 5
Lowndes County	95, 761. 92	. 96	9, 505. 50	. 08	105, 267. 42	. 47	. 4
Perry County	22, 968. 42	. 23	22, 312. 00	. 18	45, 280. 42	. 20	. 4
Sumter County	44, 497. 16	. 45	70, 253. 50	. 57	114, 750, 66	. 51	. 5
Wilcox County	81, 630. 02	. 82	76, 285. 83	. 62	157, 915. 85	. 71	. 5

[1] To nearest 10th.

[2] More than 41 percent of the resident families earning less than $3,745 per year; and less than 0.55 percent of the State's wealth in the county as measured by an economic index calculated biennially by the State for each county.

The years immediately after the passage of the 1968 amendments saw a significant increase in construction and equipment investment in the State. The Appalachian Regional Commission has been generous in their financial support of these facilities. Twenty-seven additional construction projects are projected to further meet the needs for vocational facilities and equipment on the following schedule: Fiscal year 1974 (9); fiscal year 1975 (8); fiscal year 1976 (5); and fiscal year 1977 (5).

TABLE VIII.—CONSTRUCTION AND EQUIPMENT EXPENDITURES

	1963–68	1969–72	1973–77
Federal	$9, 957, 516. 03	$17, 406, 174. 08	$6, 794, 116. 19
State and local[1]	8, 254, 362. 43	7, 981, 290. 88	2, 918, 299. 79
Total	18, 211, 878. 46	25, 387, 464. 96	9, 712, 415. 98

[1] Data separating State and local contributions are not available.

PUBLIC LAW 90–576—OTHER FEDERAL PROGRAMS

Exemplary Programs and Projects

Significant progress has been made in each of Alabama's exemplary projects. In both the Jefferson County and Sylacauga programs, excellent methods for dealing with disadvantaged youth have been developed almost eliminating absenteeism for this group. The Russellville staff has completed one major curriculum development project relating to occupational information developing selected interdisciplinary units and identifying and implementing on a pilot basis an excellent guidance and counseling program. The Huntsville staff has prepared and distributed thirty career education publications and has developed a mobile Industrial Arts facility for providing exploratory experiences for elementary youth. The Montgomery staff has developed plans for system-wide implementation of the Career Education concept and has produced six slide-tape presentations identifying clausters of jobs and presenting other related information.

Fiscal Year 1968: None

Fiscal Year 1972:

Sylacauga City Schools, A Sheltered Work Experience Centered Vocational Curriculum for Low Achieving Students, July 1, 1970–June 30, 1973. (44 students served this fiscal year.)

Jefferson County Schools, Vocational and Compensatory Education Curriculum for the Rehabilitation of Socially and Economically Deprived Youth, July 1, 1970–June 30, 1973. (116 students served this fiscal year.)

Russellville City Schools, Inter-disciplinary Approach to Career Development through a High School Program of Occupational Education, July 1, 1970–June 30, 1973. (2,045 students served this fiscal year.)

Huntsville City Schools, Comprehensive Occupational Educational Programs for the Elementary and Secondary School, January 1, 1971–December 31, 1973. (4,967 students served this fiscal year.)

Montgomery Public Schools, Montgomery County's Approach to Career Education—Grades One Through Twelve (Component Planning Grant), July 1, 1972–June 30, 1973. (992 students served this fiscal year.)

Fiscal Year 1977:

It has been projected that 20 exemplary programs will be in operation by fiscal year 1977 serving an estimated 32,640 students.

Residential Vocational Education

The high mobility of the State's population has prompted our efforts to develop programs of vocational education wherever sufficient numbers exist to produce a class of reasonable size, regardless of the specific locality in the State where the manpower need for the occupation being studied may be located. Realizing that residential vocational schools have not as of yet been funded, Alabama has done very little toward developing a plan for their development. However, it is generally felt that such centers would be built in localities where transportation to and from the area would be sufficient, and where a wide range of offerings would be relevant. Anticipating such funding would produce an estimated need for four such schools immediately and a projection of eight by 1977. Funding of such facilities is desperately needed in States such as Alabama where a significant percentage of the State's population resides in rural areas. The needs of this segment of the population are clearly important and significantly unmet in many specific areas of training.

Consumer and Homemaking

Economically depressed areas of the State are defined annually during the State planning process. Approximately 30 percent of the Consumer Homemaking effort is directed toward depressed areas in the State. Enrollment in consumer homemaking has increased 13.39 percent since 1968 as evidenced in table IX.

TABLE IX.—CONSUMER AND HOMEMAKER ENROLLMENTS

		1968		1972						1977 (projected)					
				Part F			Part B			Part F			Part B		
	1963	Useful employment	Gainful employment	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	29,298	35,989	1,006	14,215	12,329	686	[1] 2,873	807	711	46,735	13,980	778	[2] 6,714	1,871	1,648
Postsecondary	0	0	0	0	0	0	201	25	0	0	0	0	470	58	0
Adult	12,710	1,665	1,951	882	307	23	2,028	353	262	1,000	348	26	4,739	819	608
Total	42,008	37,654	2,957	42,097	12,636	709	[1] 5,102	1,185	973	47,735	14,328	804	[2] 11,923	2,748	2,256

[1] 461 students listed in table I under 1972 secondary occupational home economics are served through 102(b) funds.

[2] A portion of the students listed in table I under 1977 secondary occupational home economics will be served through 102(b) funds.

Cooperative Vocational Education

Between 1968 and 1972 Alabama increased enrollments in cooperative education by 118 percent. It is projected that by 1977 cooperative education enrollments will have increased 216 percent over 1968 as indicated on table X.

TABLE X.—COOPERATIVE VOCATIONAL EDUCATION ENROLLMENTS UNDER THE VOCATIONAL EDUCATION AMENDMENTS OF 1968

		1972		1977 (projected)	
	1968 [1]	Part B	Part G	Part B	Part G
Agribusiness	0	2,040	52	2,958	75
Distribution	2,385	2,551	189	3,699	274
Health	566	593	44	860	64
Consumer homemaking	0	0	0	0	0
Occupational home economics	0	0	117	0	170
Office	0	1,426	356	2,068	516
Technical	0	0	0	0	0
Trades and industry	1,505	2,049	261	2,971	378
Special programs	0	26	0	38	0
Column total	4,456	8,685	1,019	12,594	1,477
Grand total		9,704		14,071	

[1] Aggregate data—part B and G. Data not available in any other form.

Work-Study Programs

The work-study program provides a significant opportunity to disadvantaged students by allowing them to earn, what in many cases is, the necessary financial resources to remain in public education. The services rendered through work study are seen as valuable and as contributors to the successes of many of Alabama's citizenry.

As evidenced by data presented, there has been a continued increase in the number of students participating in the work-study program. An increasing number of local education agencies recognize the value of this program. There are letters on file from administrators in local education agencies fully endorsing this program. These administrators call for the continued funding of this program for they recognize the contribution of work experience and financial support as a vital element in the growth of students.

TABLE XI.—*Work-study enrollments*

	Number of work-study students served
1963	0
1968	654
1972	811
1977	[1] 6,120

[1] Increased work-study funding in the current fiscal year from budgetary surplus combined with a reduced work time per student enabled an increase to be realized in enrollment. For this reason trend-line projections may be unrealistic.

Research and Training

Part C funds are used for the operation of the State Research Coordination Unit; for making grants to colleges, universities, local educational agencies, or other public or nonprofit private agencies or institutions; and for entering into contracts with any private agency, organization or institution for purposes of vocational education research. Proposals are accepted on both a solicited and nonsolicited basis from the above agencies.

Part C moneys are used to conduct programs of research, development, evaluation, dissemination, and demonstration through the Department of Education; approved technical institutes; State universities; school boards; area vocational schools; junior colleges; and by other nonprofit or public agencies or institutions concerned with vocational and technical research and related programs.

Alabama has realized very real and substantial contributions to its vocational education efforts through the utilization of part C moneys. Procedures and practices shown to be effective through research have been implemented to further enhance the effectiveness of administration and instruction in the State. Primarily the RCU has directed and implemented these studies.

Walter M. Arnold Associates, Inc. conducted a research study entitled, "A Program Planning Study of Secondary Vocational Education in Alabama." This research reported a series of projected goals and recommendations based on the findings and conclusions cited. In addition a long term recommendation for expanding vocational education was developed and documented. Through such activities, part C funds have contributed significantly toward the improvement of vocational education in Alabama.

Commissioner's Discretionary part C moneys were disbursed to two localities in Alabama for Career Education Model Development sites. These local agencies have developed materials, procedures, and curriculum for integrating the career education concept into Alabama schools. These developments have been implemented in the classroom and are being tested and evaluated. Revisions are made as necessary and the validated materials are made available to other systems in the State and Nation insuring maximum dissemination and utilization.

State Advisory Council

Within the last year, the State Advisory Council has become knowledgeable and supportive of vocational education in the State. Their recommendations have not always been in the best interest of vocational education and thus could not be supportive. There has been evidence of "instant solution" for difficult problems and attempts at empire building.

Summary and Recommendations

The progress within the State in vocational education resulting from State and Federal expenditures is evident in the information submitted in this report. The needs of all the people in all areas of the State are not currently being met. Vocational education must be continued and expanded to meet the present needs of people as well as the needs of the growing industrial community.

The Better Schools Act of 1973 and the regionalization of the Office of Education is seen as a backward move. If national priorities in Education are to be a reality, categorical funding and supportive staff in the Office of Education must be continued until the dichotomy between vocational and academic education is resolved and/or becomes mutually supportive. The present structures must be maintained.

ALASKA

State Director—Louis D. Ridle

INTRODUCTION

The vocational growth picture in the State of Alaska was minimal and fluctuated for a number of years primarily because no special funding other than a token federal apportionment had been available for vocational education in 1969–70. The Alaska State Legislature, through the efforts of the Department of Education, particularly the Division of Vocational Education, passed into law a foundation support program based on full time equivalency for vocational education. This foundation support program addressed itself to those students who are enrolled in an approved vocational technical program and the funds made available are above and beyond the regular ADM provided school districts.

During the course of 1970–71 it was found that this financial support equals approximately 45 percent of the total costs for large school districts, 65 percent of the cost for middle school districts, and 90-95 percent of the costs for small school districts. A study was done which revealed the above figures and as a result of this study the Legislature readjusted the foundation support program which allows all school districts approximately 90 percent foundation support. At the same time included in this bill was a provision that allows for a 75 percent reimbursement to school districts for all vocational facilities constructed, going back to 1970 and for all those constructed in the future.

As a result of this financial support the enrollment has increased more than twice in a four year period and it is anticipated that the enrollment will increase again by at least one-third by 1977.

GROWTH IN VOCATIONAL EDUCATION ENROLLMENTS—ALASKA

	1963	1968	1972	1977 (estimate)
Total enrollments	(1)	9,916	20,926	35,668

[1] Not available.

PUBLIC LAW 90-576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

a. Job Training Enrollments

	1963	1968	1972	1977
01.0000 Agriculture:				
Secondary	(1)		51	72
Postsecondary	(1)			
Adult	(1)	45		
04.0000 Distributive education:				
Secondary	(1)	974	652	1,100
Postsecondary	(1)		1,762	2,300
Adult	(1)			600
07.0000 Health:				
Secondary	(1)	34	85	135
Postsecondary	(1)		210	250
Adult	(1)	45	107	[illegible]
09.0000 Home Economics:				
Secondary	(1)	1,664	2,422	6,155
Postsecondary	(1)		56	800
Adult	(1)	75	235	1,200
14.0000 Office:				
Secondary	(1)	5,006	6,332	8,000
Postsecondary	(1)	205	86	1,200
Adult	(1)	130	708	2,000
16.0000 Technical:				
Secondary	(1)	229	68	100
Postsecondary	(1)	20	174	275
Adult	(1)	24	1,505	1,725
17.0000:				
Secondary	(1)	1,105	2,244	3,966
Postsecondary	(1)	78	526	780
Adult	(1)	282	3,703	4,860

[1] Not available.

b. General Description

In 1970 the Alaska Department of Education contracted with the Alaska State Department of Labor to do a manpower study projecting jobs for the seventy's. As a result of this study and the upgrades that take place each year the division of vocational education is continuously readjusting its training programs to meet the proposed employment demand in Alaska through the seventy's. Also as a result of this study a tremendous growth has taken place, particularly in secondary and postsecondary levels, allowing more offerings of courses to Alaska residents. This has also allowed such agencies as Bureau of Indian Affairs, Office of Vocational Rehabilitation, and others to have a larger variety of services at their disposal and as a result in a tremendous reduction of Alaska Natives being transferred outside the State of Alaska for training in other locations.

c. Postsecondary Courses

Of the seven community colleges that existed in 1970 each one has increased offerings from one to five occupational training areas. In addition to this one new community college has opened in Bethel, and an extention branch of the university in Nome. Also, the Alaska Skill Center has opened in Seward, Alaska, which, in addition to occupational training, provides a complete service of medical referral, 24-hour guidance and counseling, residential and boarding home program, recreational, adult basic education, drug abuse program, and other related services. Enrollment as a result of these additional program offerings has increased by 400 percent in 1968–72 and we anticipate an additional 200-percent increase by 1971.

BREAKDOWN OF POSTSECONDARY ENROLLMENTS

Type of postsecondary school	1963	1968	1972	1977 estimate
Junior and community college	(1)	345	2,814	4,800
Technical institutes	(1)	0	450	600
Area vocational schools	(1)	0	0	0
Other postsecondary institutions	(1)	0	0	0

[1] Not available.

d. Disadvantaged Students

The Alaska State plan for vocational education defines "Disadvantaged Persons" as persons who have academic, social economic, cultural, or other handicaps that prevent them from succeeding in regular vocational education programs designed for persons without such handicaps and who, for that reason, require specially designed educational programs and related services, or both in order for them to benefit from a vocational education program or consumer and homemaking education. The term includes persons whose needs for such programs or services result from poverty, neglect, delinquency, or cultural or linguistic isolation from the community at large but does not include physically or mentally handicapped persons unless such persons also suffer from the handicaps described in this paragraph.

These people were identified, recruited, and enrolled with the assistance of agencies, organizations, and institutions with ultimate enrollment by the local school administrator. Criteria applied in identifying disadvantaged students included:

1. Standardized achievements tests to determine reading level, linguistic ability, and level of basic skills. If the student was 3 years behind in any of these he qualified for training under this category.
2. Bilinguial problems in handling the English language.
3. Family income less than $5,000.
4. Cultural isolation so that the student does not have reasonable access to a well-rounded cultural indoctrination.

School administrators, vocational teachers, and guidance counselors cooperated the organizations, agencies, and institutions to identify and recruit disadvantaged persons for vocational training. In addition, State and local supervisors worked to insure proper application of disadvantaged criteria in identifying and recruiting such persons.

Special Needs.

102(b) Disadvantaged:

As the State receives minimal support for the "special needs" categorical fund, the division selects the one project each year submitted by the districts that most meets the criteria for 102(b).

During fiscal year 1972 the fish hatchery program in Ketchikan was selected as meeting identified needs of disadvantaged youth in a high unemployment area. The project, Deer Mountain Fish Hatchery, formerly operated by the State of Alaska, has been turned over to the Ketchikan Gateway Borough School District for operation on an experimental basis and is included in Project Sea Ed as a part of that program's vocational cluster concept.

A number of experiments are being conducted by the students. Experiments are mostly in the areas of better yield and earlier migration from fresh to salt water.

ENROLLMENTS OF DISADVANTAGED STUDENTS

	1963	1968	1972	1977
Regular	(1)	(1)	8,600	11,000
Special needs	(1)	(1)	52	(2)

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[1] Not available.
[2] Unknown.

e. Handicapped Students

Many rural Alaskan children have crippling physical defects or are hard of hearing because they are required to travel 300 to 700 miles by bush plane to receive proper medical attention at Public Health Services hospitals.

Seventy percent of the funds are spent with the Fairbanks Sheltered Workshop for Handicapped Children where Vocational Rehabilitation, Bureau of Indian Affairs, Department of Labor, and the Division of Vocational Education have a cooperating assistance program. The division has purchased the majority of the equipment over the past years.

Twenty-five percent of the funds are assigned to special education units within district schools who have identified handicap needs.

	1963	1968	1972	1977
Educationally mentally retarded	(1)	(1)	15	30
Hard of hearing	(1)	(1)	128	200
Visually impaired	(1)	(1)	2	20
Crippled	(1)	(1)	95	150
Learning disabilities	(1)	(1)	431	700
Total			671	700

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[1] Not available.

f. Adults

As the number of unemployed Alaskan workers increased the roll of adult vocational education and MDTA training programs stepped up training opportunities. Job training programs for adults grew considerably between 1968 and 1972 training and retaining larger numbers of the unemployed and a growing percentage as well. The roll of MDTA continues to grow, and impressive gains are being achieved in vocational education programs. However, this progress can only be maintained as projected if funding for these programs is substantially maintained.

	1963		1968		1972		1977 [1]	
Individuals	Vocational education	MDTA	Vocational education	MDTA	Vocational education	MDTA	Vocational education	MDTA
Unemployed	19,000		23,000		41,000		51,000	
In preparatory training	(2)	(2)	602	49	3,880	103	4,900	300
In regular training	(2)	(2)	24	514	2,378	740	3,700	600
Totals in training	(2)	(2)	626	563	6,258	843	8,600	900
	(2)		1,189		7,103		9,500	
Percent of unemployed	(2)	(2)	2.6	2.3	15.3	2.0	16.9	1.8
Percent served	(2)		4.9		17.3		18.6	

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[1] Assuming no revenue sharing.
[2] Not available.

g. Financing

1. Detailed description of the method used for the distribution of part B funds among local educational agencies and other agencies in the State.

School districts requesting reimbursement for an occupational and cooperative program will submit an annual and a 5-year program projection request for funds, memorandum of agreement, Form 05–501–50, parts 1 and 2, directly to the director of vocational and adult education by the first of February prior to the year of operation.

Upon receipt of these memorandums, the director will assign a project number and distribute the memorandums to the subject area supervisor for approval or recommendations for amendments.

(*a*) Reimbursable office occupations programs must contain a continous two-period simulated office practice laboratory or one-period simulated office practice laboratory and cooperative on-the-job training within its curriculum.

(*b*) The trade and industrial program of instruction will be based on a consideration of the skills, attitudes, and knowledge required to achieve the occupational objectives of such instruction. The program of instruction will be sufficiently extensive in duration and intensive within a scheduled unit of time to enable the student to achieve the occupational objectives of the instruction: for example—

(1) Sequential 3-year program which consists of 2-hour block classes for 3 years.

(2) Sequential 2-year program which consists of 3-hour blocks for 2 years.

(3) Sequential 2-year program which consists of a 2-hour block plus cooperative on-the-job training for both years.

(4) Sequential 2-year program consisting of a 2-hour block plus summer employment to totaling 180 hours.

(*c*) Reimbursable home economics programs must include homemaking I and II in their curriculum.

Postsecondary funds will be apportioned by the same procedure as secondary funds based upon the required percentage in the 1968 act for postsecondary programs.

Upon receiving the approved occupational or cooperative memorandums from the supervisors, the director will establish a VADM (vocational average daily membership) entitlement contingent on the receipt of Federal vocational funds allocated for secondary schools. The VADM entitlement will be determined in the following manner:

Total Federal VEA 1968 funds marked for secondary education minus 10 percent for the area program chiefs of vocational and adult education to develop new programs, divided by the total number of students enrolled in occupational vocational and adult education programs.

Example: Total Federal funds—$232,811.

232,811
−31,041

201,770 divided by 1,568=128.62

The formula used to determine entitlements to the local school districts will be as follows:

VADM × A × B × C = Program Entitlement × D = Actual Dollar Entitlement.

A = Number of vocational students in the program.

B = Relative Ability to pay factor which is taken from Table B. This table indicates the ability to pay based upon equivalent evaluations per ADM, the adjusted ratio, as listed in the right-hand column, is used as factor "B" in the applied formula.

C = The relative costs of programs as shown in Table C. This table lists the average cost per ADM as $800 which is used as a median, or one. Then the relative cost of program is computed above and below one with the advantage going to the school with the highest cost.

D = Manpower needs and job opportunities which are determined by dividing occupations into four categories. These four categories are determined by the Local Vocational Advisory Council based on judgment factors considering local, state, and national manpower needs and job opportunities. These four categories are as follows:

(*a*) Group one consists of high need occupations and programs in this category will be funded on a 100 percent basis in the formula.

(*b*) Group two will be considered as less critical in demand and will be financed on a 90 percent basis in the formula.

(*c*) Group three will be classified as medium demand occupations and will be financed on an 80 percent basis.

(*d*) Group four will be occupations for which there is the least need for training and will not receive any consideration for funding from the State Vocational and Adult Education Division.

STATE OF ALASKA, DEPARTMENT OF EDUCATION—INVERSE RATIO TABULATION, 1971–72, INITIAL REPORT

[Factor B (ability to pay)]

June 1, 1971	ADM	Equivalent evaluation per ADM	Inverse ratio	Weighted ADM	Equivalent ADM	Adjusted ratio
District schools:						
Anchorage	31,783	30,193	.6907	21,953	27,574	.8676
Bristol Bay	283	53,224	.3819	108	135	.4770
Fairbanks N.S	8,453	29,630	.7039	7,608	9,513	1.1254
Haines	469	23,446	.8896	417	521	1.1109
Juneau	4,077	33,675	.6194	2,525	3,044	.7466
Kenai Peninsula	5,032	52,354	.3984	2,005	2,507	.4982
Ketchikan Gateway	2,851	35,779	.5829	1,662	2,078	.7289
Kodiak Island	2,538	23,844	.8747	2,220	2,775	1.0934
Matanuska-Susitna	2,173	24,434	.8536	1,855	2,319	1.0672
Sitka	1,813	18,480	1.1286	2,046	2,558	1.4109
Cordova	513	17,522	1.1908	610	762	1.4854
Craig	80	17,469	1.1939	95	118	1.4750
Dillingham	350	12,047	1.7313	605	756	2.0000
Hoonah	277	4,729	4.4104	1,221	1,526	5.5090
Hydaburg	48	9,651	2.1611	104	130	2.7083
Kake	183	4,406	4.7338	866	1,082	5.9125
King Cove	71	13,396	1.5570	111	138	1.9436
Klawock	67	6,490	3.2137	215	269	4.0149
Nenana	240	8,240	2.5312	607	759	3.1625
Nome	800	10,733	1.9433	1,555	1,944	2.4300
Pelican	32	29,615	.7403	23	28	.8750
Petersburg	649	23,689	.8805	571	714	1.1001
Skagway	206	31,896	.6539	134	167	.8107
Unalaska	108	14,205	1.4683	159	198	1.8333
Valdez	304	26,827	.7775	236	295	.9703
Wrangell	637	17,590	1.1857	755	944	1.4819
Yakutat	115	7,557	2.7600	317	374	3.4434
St. Mary's	112	2,879	7.2445	811	1,048	9.7943
Totals	64,264			51,394	64,264	
Averages		20,857				

"C"—DISTRIBUTION OF EXPENSES, DISTRICT SCHOOLS

	Cost per pupil	Relative cost of program
Anchorage BSD	$1, 165	. 92
Bristol Bay BSD	1, 921	1. 52
Cordova CSD	1, 364	1. 08
Craig CSD	3, 535	2. 80
Dillingham CSD	2, 094	1. 65
Fairbanks N.S. BSD	1, 371	1. 08
Haines Special	1, 273	1. 00
Hoonah CSD	2, 002	1. 58
Hydaburg CSD	2, 331	1. 84
Juneau BSD	1, 097	. 86
Kake CSD	1, 777	1. 40
Kenai Peninsula BSD	1, 435	1. 13
Ketchikan BSD	1, 192	. 94
King Cove CSD	1, 074	[illegible]
Klawock CSD	2, 116	1. 67
Kodiak Island BSD	1, 301	1. 03
Matanuska-Susitna BSD	1, 451	1. 14
Nenana CSD	1, 764	1. 39
Nome CSD	1, 471	1. 16
Pelican CSD	1, 805	1. 43
Petersburg CSD	1, 309	1. 03
Sitka BSD	1, 206	. 95
Skagway CSD	1, 600	1. 26
Unalaska CSD	1, 721	1. 36
Valdez CSD	1, 777	1. 40
Wrangell CSD	1, 186	. 93
Yakutat CSD	1, 858	1. 47
St. Mary's	1, 496	1. 18

Note.—Average cost per ADM=$1,262.

SECONDARY: SAMPLE 1

Number of students x ability to pay x cost of program x VADM=
"A" "B" "C"
Program Entitlement x Manpower=Actual Entitlement
"D"
58 x .92 x .95 x $128.62=$6,520.00
6,520.00 x Factor "D" (100%)=$6,520.00

SECONDARY: SAMPLE 2

20 x 1.90 x 1.16 x $128.62=$5,669.56
$5,669.56 x (Group 3) 80%=$5,102.60

POST-SECONDARY: SAMPLE 1

Number of students x ability to pay x cost of program x VADM=
Program Entitlement x Manpower=Actual Entitlement.
12 x .9903 x 1.30 x $128.62=$1,987.00
$1,987.00 x Factor "D" (90%)=$1,788.30

POST-SECONDARY: SAMPLE 2

10 x .87 x .90 x $128.62=$1,107.41
$1,107.41 x (Group 3) 80%=$885.92

Payment will be made to the schools upon submission of expenditures based upon 3.27. Final payment for the school year will be made after all forms and reports have been made to the State Division of Vocational and Adult Education.

Set aside funds for disadvantaged, handicapped, as well as earmarked funds for adult vocational education will be allocated on an individual project basis. Programs for the handicapped will be placed on needs identified in the State projected activities report for handicapped children. However, in this area, emphasis will be placed on needs with less emphasis placed on ability to pay.

(ii) Not Applicable as there are no cities over 250,000 in Alaska.

h. Construction and Equipment

As a result of the State legislature reimbursing school districts up to 75 percent of total cost including construction of vocational facilities a number of facilities has been either remodeled or constructed during the past 2 years. These include:

	Local	State	Federal
Kodiak (1963)	0	2,000,000	1,000 000
Nome-Beltz (1966)	0	0	559,000
Nome-Beltz (1972)	0	1,000,000	1,000,000
Unalaska	0	150,000	0
King Cove	0	150,000	0
Fairbanks	0	1,500,000	3,000,000
Metlakatla	0	250,000	0
Bethel	0	2,500,000	0
Dillingham	0	450,000	0
Bristol Bay	0	200,000	0
Nenana	0	250,000	0
Yakutat	0	100,000	0
Kake	0	100,000	0
Fort Yukon	0	75,000	0
Glennallen	0	100,000	0
Sand Point	0	50,000	0
Tok	0	50,000	0
Nulato	0	175,000	0
Healy	0	200,000	0
St. Mary's	0	150,000	0
Kiana	0	150,000	0
Selawik	0	150,000	0
Noorvik	0	150,000	0
Mountain Village	0	150,000	0
Emmonak	0	150,000	0
Alakanuk	0	150,000	0

Local education agencies in Alaska with vocational-technical or adult education programs are dependent on all means of available sources for acquiring property to supplement—on-going programs or for establishing new programs. We cannot anticipate rapid growth in the vocational training program areas needed in meeting the work force demands for Alaska without the Federal excess personal property program in acquiring equipment at a savings. This savings is critically needed by Alaska to offset the high training costs and to help develop new program areas.

There is additional construction being conducted within the State but it is impossible to tie it together in time for this report.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

Exemplary programs	Persons served		
	1968	1972	1977
a. Anchorage SAVE program, Anchorage, Alaska	([1])	176	([2])
b. Juneau Project Careers, Juneau, Alaska	([1])	42	([2])

[1] Not available.
[2] Unknown.

Two continuation projects were funded this year with exemplary funds:

(a) Occupational orientation (SAVE program) in Anchorage is meeting the needs of 240 "hard core" disadvantaged youth. The only problem with the programs are that the facility will only handle a limited number of youth, and the regular high schools are not interested in absorbing the additional youth in the regular program. The program has proven to be highly successful in relating to these special disadvantaged youth.

(b) Project Careers, a project designed to meet the needs of disadvantaged youth in the model cities area of Juneau, suffered a major setback in that their building and materials were completely destroyed in a fire in February. The teachers and students should be commended in the fact that within 2 weeks the programs was operating again at 80-percent efficiency.

The loss of materials and equipment was a major setback in that all the UNIPAC, individualized learning packages had to be completely reproduced. This was almost an impossibility to accomplish prior to the "1972" class graduation. Again the students and staff should be commended as they increased their output so that the senior students could meet their graduation requirements. And, even with the fire the average student enrollment throughout the year was 120 students.

Both programs are presently receiving State foundation support as separate secondary units. This, coupled with federal moneys, should make both units self-sufficient by fiscal 1974.

b. Residential Vocational Education

The State of Alaska makes no provision for construction or establishment of residential vocational education schools in accordance with the State Plan. Therefore, this section is not applicable, except the Vocational Residential School (skill center) for adults located in Seward, Alaska.

c. Consumer and Homemaking

Growth in home economics programs was evidenced during fiscal year 1972 in categories from early childhood through adult. Cooperation with local education agencies, cooperative extension, community colleges, universities, private organizational agencies, and other Government departments resulted in broadening the knowledge of the resources available through home economics.

Programs funded in the secondary schools increased to 45 with an increased enrollment to 2,700. Course work ranged throughout the State in the five areas of home economics, namely; human development and the family, consumer education and management, environmental housing and life styles, nutrition and food, and clothing and textiles.

Several grants were utilized in programs on consumer buying which promoted greater emphasis in the area of consumerism. One project was climaxed by a field trip to a larger community to gain a better knowledge of buying practices. Another developed a community store complete with the wholesale and the retail components. Several developed the project around purchasing materials for their local home economics department.

In cooperation with home economics teacher education at the University of Alaska a nutrition education project was coordinated with the school lunch supervisor of Lathrop High School, Fairbanks.

Elementary pupils received class instruction from a home economics major. The lessons were in nutrition and were preceded and followed by a cafeteria food selection survey.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	(1)	1,161	393	2,168	1,208	59	274	86	2
Postsecondary and adult	(1)	0	75	127	142	7	164	56	0
Total	(1)	1,161	468	2,295	1,350	66	438	142	2

[1] Not available.

d. *Cooperative Vocational Education*

Secondary enrollment reached 128 full-time students in distributive education, 95 FTE in office education, and 28 FTE in other areas. In addition, 72 FTE's were generated by "other" cooperative programs.

Eight secondary school stores functioned throughout the year. Three names illustrate business identity: "Learner Larder" (Kenai Central), "The Lair" (Dimond, Anchorage), and the "Eagle Stop and Shop" (West, Anchorage).

In cooperation with the University of Alaska, 29 sessions of postsecondary cooperative education were carried on throughout the State. Sessions were offered in cooperation with Small Business Administration and State chamber of commerce from Gambell in the northwest to Petersburg in the southeast. Some 1,728 individuals participated in this program.

Rural student vocational program: Twenty high schools were able to have young adults participate in RSVP. This allowed for 128 individuals to receive on-the-job training during the school year, and an additional 20 people worked during the summer program.

Teacher Education: Three major courses were offered for business instructors during the year. Cooperative occupational education was offered in Kodiak and Anchorage with an enrollment of 29 people. Three workshop sessions in simulated office practice were offered in Kenai and Anchorage and 36 people participated. Two sessions of instructional design were offered to 14 participants in Anchorage and Fairbanks.

	Co-op
1963	-----
1968	504
1972	1,936
1977 estimate	8,000

e. *Work Study Programs*

Work study funds are not compatible to present standards of living in Alaska. With the minimum wage law in Alaska being

$2.60, the $45 maximum allowed by work study funds doesn't derive adequate remuneration for the student to become involved. The State plan objectives states that work study funds were to be spent in the model cities area only. However, in the model cities area alone we find we can place all of the students at the $2.60 wage in regular industry. (2,942) Minimal work study funds were expended in fiscal year 1972 because of the availability of jobs in industry for model cities disadvantaged youth.

During fiscal year 1973 new methods of expending work study funds will be explored, primarily on military bases where there is no civilian employment.

f. Research and Training

The limited set aside funds has not allowed Alaska to become greatly involved in the development of a R.C.U. Therefore, the funds for fiscal year 1972 were distributed to specific research areas that would bring direct results to program development.

A grant award was made to the Alaska Health Manpower Corporation to ascertain the total health needs within the State, and the necessary training programs to meet these needs.

The Governor's Manpower Advisory Council received a grant award to assist in a coordinated study with Department of Labor, and Bureau of Indian Affairs to establish the manpower needs for the seventies and publish such information through CAMPS.

The other grant award was to Alaska Methodist University to fund the second year of an economic study of northwest Alaska, as to the potential of vocational program development in as isolated rural community with a subsistence base.

STATE ADVISORY COUNCIL

The Alaska State Advisory Council for Vocational Education has been a tremendous asset in influencing the vocational contract in the State of Alaska. They have conducted a basic needs assessment in almost every locality throughout the State as well as doing the final study in 1972 for vocational-technical schools on the secondary level. As a result of these two studies legislation has taken place which allowed for additional financial assistance for vocational programs from secondary through the adult level.

SUMMARY AND RECOMMENDATIONS

It would be my sincere opinion that the Congress of the United States would give serious consideration to the small populated States such as Alaska and set a minimum apportionment for each of those States, so that adequate programming could take place on an equitable basis with other States. As an example, if revenue-sharing should become law the immediate impact of that act would mean immediate reduction on the Federal apportionment to the State of Alaska in the neighborhood of $20–$25 million, causing a tremendous financial hardship on the small number of inhabitants in the State, with very little population and no manufacturing or industry.

Alaska being a small State in terms of population has suffered tremendously through the existing apportionment formula now being used by technical education of the proposed formula that are being recommended by the Better Schools Act of 1973. Also, due to the fact that Alaska is somewhat remote from the rest of the continental United States increased costs of doing business has been felt and neither the Vocational Act of 1963, the Amendments of 1968 or the Better Schools Act of 1973 allow any provisions for an increase cost-of-living index that exists in Alaska. However, at the same time, Congress has seen fit over the years through the military operations, Bureau of Indian Affairs, Bureau of Land Management and other U.S. Department of Interior agencies, et cetera to allow a 25 percent cost-of-living index for the employees as well as the operation of the programs. It is the opinion of this writer that the Federal Government has discriminated against Alaska's youth and adults by their failure to recognize the fact that it does cost more doing business in the State of Alaska, but on the other hand no additional compensation has been made for a State two and one-half times the State of Texas a small population of which all apportionments are based on.

ARIZONA

State Director—Eugene L. Dorr

INTRODUCTION

The Vocational Education Act of 1963, and the Vocational Education Amendments of 1968, have been major catalytic agents in the growth of Arizona vocational education programs. In 1963, prior to the impact of Public Law 88-210, these programs served only 29,548 youth and adults in a State whose population was 1,521,000. In fiscal year 1972, 94,618 were persons served in a population of 1,925,000. Even during a period when total population increased nearly 27 percent, the percentage of persons served compared to the total population of the state increased 2½ times.

In terms of human needs and manpower requirements, there is much more to be done in Arizona vocational education. A projection of enrollment in 1977 of 113,725 represents a growth of only 20 percent, consistent with anticipated population growth. Unless greater Federal and State support is forthcoming, it will be most difficult to increase the percentage of the population served.

Arizona has given national leadership to the implementation of the concept of career education throughout all of education. State funded projects have, for 2 years, made a major impact on the total curriculum. Emphasis has been placed at the elementary level, and as a result students who will be moving into secondary programs will be more aware of themselves and the total world of work than ever before. It is critical that vocational education programs, as an integral part of career education, provide for the necessary continuity to serve the more valid career interests of these students.

PART B—STATE VOCATIONAL EDUCATION PROGRAMS

a. Job Training Enrollments

Table 1 below provides enrollments and enrollment projections by program areas and levels for the years under consideration. In 1963 and 1968, these programs were funded through the Smith Hughes and George Barden Acts. In 1972 and 1977, the enrollments are identified with part B of the 1968 amendments to the 1963 Vocational Education Act.

It should be noted that home economics enrollments listed include useful as well as gainful programs. Enrollments of the disadvantaged and handicapped are provided in table 2.

TABLE 1.—JOB TRAINING ENROLLMENTS IN ARIZONA BY PROGRAM AREAS AND LEVELS

Level and area	1963	1968	1972	1977
Grand total	29,548	55,677	94,618	113,725
Secondary:				
Other		84	905	
Agriculture education	2,239	2,236	3,661	4,000
Distributive eudcation	436	1,997	3,816	4,800
Health occupations education		60	1,478	2,200
Home economics education	14,205	20,810	23,122	26,000
Office education		4,481	9,796	14,800
Technical education	58	7		
Trade and industrial education	2,112	1,948	8,309	10,200
Total	19,050	31,623	51,117	62,000
Postsecondary:				
Other		62	4	
Agriculture education		298	435	650
Distributive education		406	4,169	6,250
Health occupations education	215	563	3,538	4,575
Home economics education	542	135	3,080	4,025
Office education		1,335	6,532	7,550
Technical education	326	1,442	5,326	3,000
Trade and industrial education		936	6,208	9,750
Total	1,083	5,177	29,292	35,800
Adult:				
Other			499	
Agriculture education	36	145	131	150
Distributive education	2,323	6,303	3,667	4,600
Health occupations education	68	383	791	1,325
Home economics education	1,841	1,528	3,109	3,600
Office education		2,635	2,316	2,625
Technical education	1,379	2,477	87	125
Trade and industrial education	3,768	5,396	3,609	3,500
Total	9,415	18,877	14,209	15,925

b. *General Description*

A comparison of the grand total enrollments from 1963 to 1968, and from 1968 to 1972, indicates a remarkable growth influenced by the Vocational Education Act of 1963, and the 1968 Amendments. The percentages of increase are 88 percent and 70 percent respectively. A more conservative projection for 1977 of 20 percent growth compared to 1972 is based on the general feeling that Federal appropriations will not increase significantly.

At the secondary level, it is significant to note that health occupations enrollment in 1968 was only 4 percent of that in 1972. At the post-secondary level, it was only 16 percent of the 1972 enrollment. This is evidence that Arizona has expanded vocational programing significantly in this field of high need and opportunity. Other areas of remarkable growth are distributive education, office education, and trade and industrial education.

c. *Post-Secondary Courses.*

Arizona has designated its post-secondary community colleges as area vocational schools thereby eliminating the existence of a dual vocational education program at the post-secondary level. During fiscal year 1972, seven county community college districts operated 11 colleges under the State system. An eighth district was established in Navajo County, and a ninth was operated in Mohave County out of the county high school district.

Each community college may provide area vocational education to both high school and college students from districts unable to meet the students' vocational education needs. Financial assistance is available through part B to sending high school districts and receiving community colleges.

The 59 percent of the total community college enrollment in fiscal year 1972, was comprised of vocational education students. This was also a 29 percent increase in vocational education enrollment compared to the previous year. A breakdown of this enrollment is provided in table 1 above.

d. Disadvantaged Students

Programs from disadvantaged set aside funds have grown from one small orientation class for ADC mothers to a complex unit serving the disadvantaged through many multiagency programs.

Since 1963, more than 50 individual programs in the areas of business, agriculture, and trade and industrial education have been developed for Indians, Mexican-American and intercity youth. In addition, a program has been developed through multiagency agreements for a statewide rehabilitative correctional program for incarcerated youth and adults.

e. Handicapped Students

Programs for handicapped youth in Arizona have grown from a small pilot program for four vocational classes in one major city to more than 45 new statewide programs with utilization of many agency services to provide K through 20 approach to training of the mentally handicapped.

In addition, the vocational enrollment from the school for the deaf and blind has more than tripled in this same period. A pilot program was started for the trainable mentally handicapped and was so successful that it has become a permanently established training program funded through State funds.

TABLE 2.—ENROLLMENTS OF DISADVANTAGED AND HANDICAPPED STUDENTS IN ARIZONA VOCATIONAL EDUCATION

	1963	1968, special needs [1]	1972		1977	
			Disadvantaged	Handicapped	Disadvantaged	Handicapped
Agriculture	(2)	567	630	51	756	61
Distributive education	(2)	82	891	53	1,069	64
Health occupations	(2)	73	707	39	848	47
Consumer and homemaking	(2)	195	3,097	374	3,716	449
Gainful home economics	(2)	(2)	371	88	445	106
Office education	(2)	214	2,089	170	2,507	204
Technical education	(2)	34	288	48	346	58
Trade and industrial education	(2)	105	3,274	294	3,929	353
Special programs	(2)	(2)	728	54	874	65
Total		1,270	12,075	1,171	14,490	1,407

[1] Includes both disadvantaged and handicapped.
[2] Data not available.

f. Adults

The most significant growth in adult vocational education in Arizona took place in the 5-year period between 1963 and 1968 when enrollment increased approximately 100 percent. This enrollment peaked in 1970 after which a downward trend has prevailed through 1972. This is largely explained in the rapid growth of post-secondary vocational educational programing during the same period. In Arizona, the average age of community college students is 40. Therefore, a great percentage of adults are enrolling for credit in post-secondary institutions, in preference to adult, noncredit, vocational education programs.

Increasing numbers of adults have need for adult vocational education without enrolling in a full-blown education program. These are individuals who either require preparatory or supplemental training for either entry into new employment or upgrading themselves while fully employed. Expansion into rural areas, and providing additional adult vocational program coordinators are among the priorities for which additional part B funds are needed.

Table 3 below provides an approximation of the percentages of adult enrollments in table 1 that fall into preparatory and supplemental programs by training area.

TABLE 3.—DISTRIBUTION OF ADULT VOCATIONAL ENROLLMENTS, FISCAL YEAR 1972

Training Area	Percent preparatory	Percent supplemental
Agriculture education	27	73
Distributive education	11	89
Health occupations education	64	36
Home economics education	32	68
Office education	50	50
Technical education	72	28
Trade and industrial education	80	20
Average	53	47

g. Financing

Part B funds are distributed in two ways to local educational agencies in Arizona. Set aside funds for the disadvantaged and handicapped are allocated on a project basis through applications that identify the project's goals, objectives, activities, and budgets. These applications are reviewed utilizing a weight formula including factors grouped by manpower needs and job opportunities, vocational education needs, financial ability of the agency, and excess costs of the equipment and program. The same method is used in distributing funds for adult programs, guidance and counseling, contracted instruction, teacher training, and curriculum development.

The second method of distributing part B funds is by formula to both secondary and post-secondary local educational agencies. At least 15 percent of part B funds are set aside for this type of post-secondary funding. An amount approximating 40 percent of Arizona's part B allocation is set aside for secondary formula funding. These allocations are referred to as grant-in-aid.

The secondary grant-in-aid formula is in three parts. The first two comprise 50 percent each of the funds distributed to each of the 14 counties. The third part is used to determine the percentage of county allocations that will be distributed to county local educational agencies.

The first half of the county formula contains six need factors, each of which is used to determine the county's percentage of the

State's need for that factor. These factors are: Total population, number of families with less than $3,000 income, number of unemployed persons 14 years of age and over, number of job opportunities and manpower demands, number of persons 14 to 17 years of age not enrolled in school, and total secondary enrollment.

The second half of the county formula contains three effort factors: vocational education enrollment, investment by local district, and average district tax rate. A county factor is determined for each of the three, and the average of these determines the effort factor for the county.

The same three effort factors are used to determine the percentage of the county allocation to each secondary school district.

The post-secondary formula follows the same pattern. However, only the counties used to establish a 100 percent base for the factoring process are those having regular day student post-secondary enrollment.

TABLE 4.—FISCAL YEAR 1972 DISTRIBUTION OF PART B FUNDS TO ARIZONA CITIES OVER 250,000 POPULATION

	Phoenix	Tucson	Total State
Federal funds	$956,183	$712,486	$4,280,991
Percent of Total	22	16	
State funds	$541,519	$365,884	$2,531,583
Percent of Total	21	14	

h. Construction and Equipment.

There is no question that funds made available through Public Laws 88–210 and 90–576 have stimulated growth in vocational education. Much of this growth has been dependent upon the provision of equipment required for learning activities. The period from 1963 to 1968, as noted in table 5 below, was one in which 95 percent of the equipment purchases were made from Federal funds. In the period of 1969 through 1972, this trend changed to where only 40 percent of the dollars spent for equipment were Federal, and 52 percent were local. This reflects an increasing identification of local districts with the responsibility to provide for vocational education, obviously stimulated through Federal aid.

Because of the relatively limited funds available for vocational education, Arizona has taken the position of not allocating State and Federal funds for purposes of construction. While the need is great for this type of assistance, it has been policy to earmark these funds for program. The only exception to this policy was made in fiscal year 1972.

TABLE 5.—CONSTRUCTION AND EQUIPMENT EXPENDITURES

	Equipment	Construction
Federal:		
1963-68	$5,417,486	
1969-72	2,409,478	$66,777
State:		
1963-68	730	
1969-72	422,202	90,271
Local:		
1963-68	269,109	
1969-72	3,121,665	216,348

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

Five part D exemplary programs were funded through the state portion of these funds by fiscal year 1972. These projects have stimulated innovative approaches to vocational education based on research results, although the volume of funding prevented implementation of many other excellent proposals. The 1977 projection is only four projects in light of anticipated funding levels.

The first project funded in Arizona was a preindustrial cooperative education program aimed at orientation to assist students in making more informed career decisions and selection of vocational programs. Thirteen students were served in this one-semester pilot program.

During Fiscal year 1972, four programs were in operation. They were as follows:

1. The Development of Vocational Skills through the Use of Learning Activity Packages—Fredonia (rural) High School.

Fifty students were served through these packages.

2. The Northern Arizona Hospitality Education Program—10 high schools in Apache, Coconino, and Navajo Counties.

Three hundred twenty-two students developed skills related to the food service/lodging industry.

3. A Career Curriculum for Sahuarita High School—near Tucson.

Five hundred thirty-one students benefitted from an integrated approach to curriculum.

4. Video Career Project—Flowing Wells (Tucson) High School.

Three hundred fifty-two students were provided a limited exposure to career fields through school produced video-tapes.

The exemplary programs have dovetailed with Arizona's thrust in Career Education.

b. Residential Vocational Education

Arizona has considered the feasibility of providing residential vocational schools. In light of the fact that the community colleges are designated area vocational schools, with those located in rural counties having residential facilities, it is believed that funding of residential vocational schools should have a low priority.

c. Consumer and Homemaking Education

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

		1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
				Part F—Consumer homemaking			Part B—Occupational home economics		
	1962-63 (fiscal year 1963) vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Total	Disadvantaged	Handicapped	Total	Disadvanta[illegible]	Handicapped
Secondary	14,205	20,919	187	2,859	2,550	309			
Adult	1,841	1,387	252	104	104				
Total	16,046	22,306	439	2,963	2,654	309		371	88

Progress has been very good in consumer and homemaking education programing for family life in economically depressed areas in Arizona. Service was expanded to 2,133 persons during fiscal year 1972, and it is anticipated 4,400 will be served in 1977.

Multiagency involvement is high. Three community colleges and a skill center cooperated with the following 13 agencies: YWCA, Wesley Community Center, Yaqui Indian Center, Salt River Indian Head Start, Salvation Army, Yuma Head Start, Yuma County Convalescent Home, OEO, Juvenile Probation Departments in Yuma and Maricopa County and in Tucson the Rio Decimo's Center, the Community Council, and the Jewish Community Service for the Aged.

d. Cooperative Vocational Education

Arizona's cooperative education programs are funded through parts B and G of the 1968 Vocational Education Amendments and through State Career Education funds. Part B and G funds were not available during 1963.

Growth in cooperative education enrollment at the secondary level has quadrupled from 1963 to 1972. Post-secondary enrollment increased by five times in the 4 years from 1968 to 1972. This is dramatic evidence of the commitment of local districts and their communities to this method of instruction.

TABLE 7.—COOPERATIVE EDUCATION ENROLLMENTS AND FUNDING

	Regular secondary	Summer secondary	Post-secondary	Funding source		
				CE	B	G
1963:						
Number of programs	58					
Enrollment	1,218					
1968:						
Number of programs	67		6			
Enrollment	1,408		180			
1972:						
Number of programs	232	22	30	90	118	76
Enrollment	4,872	990	900			
1977:						
Number of programs	402	35	55	80	282	130
Enrollment	8,442	1,575	1,925			

e. Work Study Programs

The consistently great demand for work-study funds reflects the popularity of this program. Requests through application generally range from 7 to 10 times the amount available.

Arizona has significantly large populations of disadvantaged minorities in all parts of the State. Students from these families frequently need this economic assistance in order to remain in school and their vocational education programs.

In 1963 there was no work-study program. By 1968, the provision for it in Public Law 88-210 permitted an enrollment of 237 students. This increased to 377 in fiscal year 1972. However, without increased appropriations, it is unlikely that a greater number of students will be helped in this manner by 1977. With increasing population, it is likely that the percentage of those served will decrease.

f. Research and Training

Research activities in utilizing part C funds are being focused in the broad area of career education. In the past fiscal year the Arizona department of education, division of vocational education has been conducting a research mini-grant program (section 131(b)) and a research and development program (section 131(a)) funded under part C of Public Law 90-576. To date, eight research mini-grant projects and one research and development project have been funded. The following is a brief summary of two funded minigrants and the research and development project:

1. Pinal Career Employability Program, Central Arizona College: The overall objective of the project is to increase the employability skills of secondary 11th and 12th grade students in Pinal County by enabling students to be eligible for job responsibilities or to upgrade their potentialities for greater career opportunities.

2. Research Analysis for Development of Experience-Centered Curriculum—Phoenix Union High School Area Vocational Center: This project is designed to acquire a solid data base for the formulation and implementation of a comprehensive experience-centered curriculum in the trades and industry program of the area vocational center. The project staff will determine the causes of low enrollment in offerings with high employment potential, identifying the most efficient and economical approaches for providing low achieving students with an experience-centered curriculum, determine realistic terminal behaviors for students participating in an experience-centered curriculum, identify the feasibility of expanded on-the-job training for target students, and delineate specifications for an exemplary experience-centered program for target students.

3. Career Education in Rural Arizona, Buckeye Union High School: The project is designed to combine six different educational agencies into one, striving for a program that articulates career education from grade K-12 in a rural farming area that covers some 1,500 to 2,000 mi^2. As much money as possible will be put to use in the classroom with teachers and students in an attempt to exploit to as great an extent as possible the reservoir of career education instructional units available through educational information centers such as the career education clearinghouse in order to modify and adapt these to a rural setting; making available throughout the project district K-12, a broad career orientation and realistic exploratory experience for students.

STATE ADVISORY COUNCIL

There is little question that the State advisory council has provided direction to the division of vocational education, Arizona department of education. In its three annual reports, the council has included sets of recommendations that have focused attention toward action.

Some of the more outstanding examples of recommendations in terms of action taken are:

1. Expansion of cooperative education programs.
2. Providing expanded opportunities for the disadvantaged through multiagency cooperation.
3. Development of a master plan for professional development through the universities based on inservice education.

4. Emphasis by the Arizona department of education on the transition to a total program of career education.
5. Refinement of the State plan for vocational education into a comprehensive, working instrument.
6. Earmarking a percentage of funds for new programs in areas of business and industrial growth.
7. Establishment of prevocational education programs.
8. Monitoring and evaluation of the professional development programs under the master plan at each of the universities.
9. Reorganization of the department of education with reference to career education.
10. Improved information system on progress being made toward goals and objectives.

SUMMARY AND RECOMMENDATIONS

Interest in and public support for vocational education seems to be at an all time high. Career education thrusts have undoubtedly influenced the thinking of youth and adults in favor of reorienting the existing system of education so that it relates to the world of work. There is a growing identification of vocational education as an integral part of career education, and the traditional dichotomy in education is beginning to dissolve.

Youth and adults alike are becoming increasingly aware of the importance of employability as the individual exits from formal education. Tied to this is the growing recognition that education is a lifelong process and that as the individual builds upon both education and work experience he may move up the ladder in his chosen career.

A review of enrollment and program growth will show that Federal legislation has made a major impact on the growth of vocational education. This financial support, along with the guidelines and regulations, has been largely responsible for this orderly growth.

This same review, however, will also reveal that there are great numbers of youth and adults who are not being served by vocational education. In Arizona, only 35 percent of secondary-level students are involved, and thousands of adults are in dead end or low opportunity jobs. There is much to be done to meet the needs of all who wish to be served.

It appears the outlook for growth in Federal funding of vocational education is less than bright. While the concept of revenue sharing is attractive, there is a growing fear that it will materially weaken the program. Funding projections are at lower levels. Priorities in revenue sharing packages are low. There is little hope that this approach will strengthen vocational education.

Tied to this dismal outlook is the paradox between congressional and executive branch support for vocational education. The negative climate in the executive branch is evident in both the features of educational revenue sharing and in the accompanying reduction of staffing in the newly created Bureau of Occupational and Adult Education. This can be offset only by increased funding levels and increased staffing at USOE regional offices. The States are in need of expanded technical assistance in the implementation of effective vocational education.

ARKANSAS

(State Director—J. Marion Adams)

INTRODUCTION

Listing of total enrollments in vocational education (including consumer and homemaking) for selected fiscal years.

Actual:

1962-63	88, 458
1967-68	97, 706
1971-72	115, 883
Projected:	
1976-77	159, 000

PUBLIC LAW 90-576—PART B—STATE VOCATIONAL EDUCATION PROGRAMS

a. Job training enrollments

Occupational areas and instructional levels for selected fiscal years.

	High school	Post high school	Adult	Total
1962 63:				
Agriculture	18, 966	0	9, 000	27, 966
Distributive education	531	0	2, 517	3, 048
Health occupations	0	718	116	834
Technical	14	0	682	696
Trade and industrial	1, 392	0	8, 762	10, 154
Home economics	0	0	0	0
Total	20, 903	718	21, 077	42, 698

	High school	Post high school	Adult	Special needs ungraded	Total
1967-68:					
Agriculture	18, 490	74	9, 846	452	28, 862
Distributive education	1, 073	19	3, 450	67	4, 609
Health	92	589	45	203	929
Technical	184	331	140	0	655
Trade and industrial	1, 585	2, 338	14, 563	270	18, 756
Office	406	1, 144	4, 150	42	5, 742
Home economics	82	30	1, 643	0	1, 755
Total	21, 912	4, 525	33, 837	1, 034	61, 308

	High school	Post high school	Adult	Total
1971-72:				
Agriculture	16, 714	82	5, 989	22, 785
Distributive education	1, 890	76	3, 470	5, 436
Health	451	1, 560	1, 007	3, 018
Technical	0	121	0	121
Trade and industrial	2, 621	2, 647	18, 888	24, 156
Office education	5, 430	1, 686	4, 646	11, 762
Home economics	269	68	652	989
Prevocational	5, 463	0	357	5, 820
Total	32, 838	6, 240	35, 009	74, 087
1976-77 (projected):				
Agriculture	20, 000	200	8, 500	28, 700
Distributive education	3, 700	200	4, 100	8, 000
Health	1, 200	2, 000	1, 885	5, 085
Technical	0	300	200	500
Trade and industrial	5, 500	3, 300	28, 800	37, 600
Office education	9, 000	2, 450	8, 930	20, 380
Home economics	1, 000	100	1, 000	2, 100
Prevocational	12, 997	0	0	12, 997
Total	53, 397	8, 550	53, 415	115, 362

b. General Description

The enrollment under part B type programs increased 44 percent during 1967–68 as compared to 1962–63 and 21 percent during 1971–72 as compared to 1967–68. It is anticipated that an increase of 56 percent will be experienced in 1976–77 over 1971–72.

c. Postsecondary Courses

A breakdown of postsecondary enrollments by types of institutions is not available for 1962–63 or 1967–68; however, the State had no community colleges and only one vocational-technical school in operation in 1962–63. Most of the people enrolled in postsecondary courses were LPN students, and most of these were enrolled in special adult schools for LPN's—schools provided by local school districts. By 1967–68 Arkansas had 13 area vocational-technical schools for postsecondary students, two community college programs, and two programs in 4-year colleges.

In 1971–72 there were in operation 14 area vocational-technical schools for postsecondary students, 2 community college programs, and 6 programs in 4-year colleges.

In 1971–72, enrollment in vocational training at the postsecondary level was more than 9 times the enrollment of 1962–63.

d. Disadvantaged students

A listing of enrollments for selected fiscal years:

	1962-63	1967-68	1971-72	1976-77
Regular programs	(1)	[2] 2,438	[2] 17,205	36,900
Special needs program	(1)	[2] 1,034	[2] 1,154	2,000

[1] Not available.

[2] Includes both disadvantaged and handicapped students.

e. Handicapped Students

A listing of enrollments for selected fiscal years:

	1962-63	1967-68	1971-72	1976-77
Regular programs	(1)	[2] 2,438	[2] 1,500	2,000
Special needs program	(1)	[2] 1,034	[2] 581	1,420

[1] Not available.

[2] Includes both disadvantaged and handicapped students.

f. Adults

A breakdown of enrollments in preparatory training and supplementary training:

	1962-63	1967-68	1971-72	1976-77
Preparatory	0	2,790	1,997	3,044
Supplementary	21,077	23,219	32,926	50,371
Total	21,077	26,009	34,923	53,415

g. Financing

(i) Each local and State agency receiving Federal funds submits to the Department of Education, Vocational Division, a local plan and application for vocational education. Information contained in these documents is:

1. Total number employed in area to total number employed in State (percentage).
2. Projected number to be employed in area in 1977 to projected number in State.
3. Impact of proposed programs on manpower needs. * * * (with additional weight for programs involving construction crafts).
4. Percent of disadvantaged families in county.
5. Unemployment rate in area.
6. School dropout rate (percentage).
7. Percentage of total disadvantaged and handicapped persons to be trained.
8. Impact of training programs in meeting overall vocational education needs.
9. Excessive wage costs.
10. Excessive costs for disadvantaged and handicapped.

In addition, information is obtained from the Administrative Services Division of the Department of Education on the assessed valuation per average daily attendance, the millage rate voted by each local agency, and the minimum foundation funds received from the State per average daily attendance. (This part is excluded on all State agencies).

All of the above information is weighted for each agency to determine its priority in computing the amount of Federal and State funding.

Each agency is required to meet the maintenance of effort in order that local funds will not be supplanted with Federal funds.

(ii) Arkansas does not have any cities which have a population in excess of 250,000.

A breakdown of Federal and State vocational education funds going to local school districts of the State and to the four poorest counties of the State; a percentage ratio of the population in the four poorest counties to the total population of the State:

	(a) Total funds statewide	(b) Total funds, poorest areas	(c) Percent, (b) of (a)	(d) Total population	(e) Poorest areas, population	(f) Percent, (e) of (d)
Federal	$768, 890	$14, 981	1. 94	1, 950, 000	26, 710	1. 37
State	659, 633	10, 975	1. 66			

The formula for distribution of State and Federal vocational funds, as a part of its design, places emphasis on providing more funds for vocational programs in the poorer rural areas within the state.

h. Construction and Equipment

Investments for construction and equipment from Federal, State, and local sources.

	Federal	State	Local
1963 through 1968	$3, 095, 892	$2, 473, 283	$1, 042, 392
1969 through 1972	100, 000	290, 000	503, 303
1973 through 1977 (projected)	0	3, 100, 000	1, 200, 000

OTHER FEDERAL PROGRAMS (CATEGORICAL)—PUBLIC LAW 90-576

a. Exemplary Programs and Projects

Number of persons served:

1967–68	None
1971–72	47,989
1976–77	100,000

b. Residential Vocational Education

Arkansas has one residential school—a technical institute. The State board has worked for several years toward its goal of establishing a post-secondary school within commuting distance of every citizen in Arkansas. Recent action of the general assembly makes funds available for 10 additional schools, which will bring to 25 the number of area vocational-technical schools in the State. Twenty-five facilities will achieve the State board goal of making training available within commuting distance of every citizen in the State.

However, one residential center for the severely disadvantaged would be of untold value. It will not be possible to establish this type center in the foreseeable future without Federal funding.

c. Consumer and Homemaking

Schools offering family living courses (nonlaboratory courses designed to prepare boys and girls for the responsibilities of adulthood) increased from approximately 20 in 1962–63 to 130 in 1971–72. Semester courses in the areas of consumer education and human development and the family were added to the curriculum in 1969. Consumer education courses were taught in 71 schools in 1971–72. Education for parenthood, consumer education, ways to carry out the dual role of homemaker and wage earner, and relationships are integrated into comprehensive courses in consumer education were taught by 79 teachers with a total of 1,732 people enrolled.

A listing of enrollments in home economics for selected fiscal years follows:

		1967–68 (fiscal year 1968)		1971–72 (fiscal year 1972)					
	1962–63 (fiscal year 1963) vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	29,433	28,570	82	34,513	12,841	1,168	269	190	3
Adult	16,327	7,828	1,673	7,283	1,253	168	720	504	8
Total	45,760	36,898	1,755	41,796	14,094	1,336	989	694	11

d. Cooperative Vocational Education

	1962–63	1967–68	1971–72	1976–77
Total cooperative enrollment	686	1,168	3,171	6,150
Cooperative enrollment under part G	(1)	0	1,258	2,400

[1] Not available.

The fact that the number of students enrolled in cooperative programs has more than quadrupled in the past 10 years makes clearly evident the wisdom of the Congress in having provided categorical funding for cooperative education. The fact that a large percentage of cooperative students are economically disadvantaged increases the significance of the availability of such training.

e. Work-Study Programs

Number of students served during selected fiscal years.

Number served:	
1962–63	0
1967–68	443
1971–72	390
1976–77	390

School administrators, students, and parents have repeatedly expressed appreciation for the vocational work-study program. Legislative changes are needed to increase the maximum amounts that students can earn under the program. The same maximum amounts are allowed now that were allowed in 1963; however, wages have increased until students are not able to work as many hours as they could work in 1963; and available funds will not employ as many students.

f. Research and Training

Part C funds have been used in Arkansas to assist in the development of the career education concept as well as to research problems involved in occupational training. Both major projects and minigrant projects have generated much interest among teachers, students, and various professional personnel.

One of the outstanding projects conducted was the "Arkansas Extern" project. It was completed during 1971–72, and a similar program will be conducted again in 1973–74 without use of part C funds. The project is described below.

Arkansas Extern Program—Leadership Development in Vocational Education, 1971–72—joint effort of the University of Arkansas, Fayetteville, and Arkansas Department of Education.

The general objectives of the program were as follows:

a. Select candidates who aspired to and appeared to possess the potential for assuming a leadership role in vocational education.

b. Develop a consortium of local, State, and university leaders and educators capable of conducting an effective leadership development program.

c. Deviate from the traditional graduate program by designing academic work which would supplement and complement field experiences.

d. Provide each participant with first-hand experiences in directing a comprehensive program planning and evaluation effort based on activities which were demonstrated to be effective in a previous statewide development research project.

e. Utilize exemplary and other outstanding vocational programs as visitation sites to enrich the weekend seminars.

f. Emphasize comprehensiveness by providing instruction and experiences in all service areas.

g. Develop group and individual objectives to be achieved through the extern program which reflect vocational program needs.

h. Deal specifically with the problems and concerns of persons participating in the program and provide experience with the decisionmaking process.

Operational Procedures

The externs participated in an innovative program which deviated extensively from traditional graduate and inservice training programs. The "Extern Program" approach was developed to bridge the gap between educational theory and practice. The academic course work, directed field experience, and seminars were carefully planned to complement and supplement each other; thus, an effective blending of academic, on-the-job training, and seminar approach to educational leadership. Academic work, closely related to the field experience which followed during the academic year, was provided through a 3-credit-hour summer workshop. Six credit hours, three each semester, were earned through the field experience program and by participation in 12 2-day weekend seminars during the 1971–72 academic year. The seminars were held at various locations throughout the State whereby externs could observe innovative and outstanding vocational programs and facilities.

The extern program as conducted may logically be described as follows: (a) The preparation for and structuring the program; (b) visitation and observation of the operation of an area vocational-technical school; (c) on-campus summer workshop; (d) directed field experience; and (e) weekend seminars.

a. The Preparation for and Structuring the Program

A brochure, describing the Arkansas extern program was prepared and widely distributed throughout the State as a basis of announcing a program for potential leaders in vocational education. From the applications received, 17 persons were selected as participants based upon criteria indicated in the brochure. (Fourteen of the group continued in the program following the summer workshop.) Approval of participants required a commitment on the part of the local agency to lend support to the program by providing an opportunity for the extern to assume a leadership role as a part of his educational responsibility and in carrying out a comprehensive program planning and evaluation effort during the school year; providing release time to attend the 12 seminars, the summer workshop, and area school visitation; and contribute toward travel expenses connected with the program. The externs paid the registration fees for the 9 credit hours earned by participating in the program and a part of the travel expenses connected with the summer workshop and seminars. Although the local agency provided most of the funds needed to support the directed field experience aspect of the program, project funds were a major source for expenses incurred for the summer program and seminars.

Careful planning with the use of an advisory committee aided in establishing a general format and structure for the extern program. This committee consisted of State vocational staff, vocational teacher educators, a director of a secondary area vocational school, a vocational teacher, a superintendent of schools, a representative of industry, and a member of the State Advisory Council for Vocational Education. Inputs by this committee included suggestions regarding instructional contents; selection of innovative and exemplary programs for visitation during the weekend seminars, resource personnel, and general extern program operation. This committee was kept informed of developments of the program and most of the members were involved in one or more of the seminars.

b. Visitation and Observation of the Operation of an Area Vocational-Technical School

Following the selection of the participants a meeting was held for the purpose of explaining in detail the overall visitations in the area vocational-technical schools, which were scheduled during June and July, 1971. Each extern visited in one school for 4 days to observe leadership roles and general operations. A written report was prepared by each extern as a basis for discussion in the workshop which followed. The reports dealt with topics such as instructional programs, student services, extension and special programs, public relations, and administrative organization policies and procedures.

c. On-campus Summer Workshop

A workshop was conducted on the Univeristy of Arkansas campus in Fayetteville during the period July 19–August 4, 1971. The classroom instruction during the workshop was designed to provide participants with a comprehensive understanding of programs in vocational education as well as to prepare them for the fieid experiences and seminars to follow during the academic year. The workshop involved a number of resource persons from within as well as outside the State. Major topics and activities included interpersonal relationships, developing individual and group goals and objectives, the State vocational education delivery system, simulation training in decisionmaking exercises, research methods and techniques, and out-of-state field trips to study vocational programs and facilities in vocational schools.

During the workshop the externs focused upon formulating the following: Extern group goals to be the basis for planning the 12 seminars during the academic year 1971–72; personal objectives to be accomplished in their respective schools during the year; a plan of action which outlined the major program planning and evaluation activities to be carried out during the year; a minigrant research proposal for submission to the Division of Vocational, Technical, and Adult Education, Department of Education, for possible funding; and a schedule of seminars for the year and the general format to be followed.

An evaluation of the workshop by the participants indicated that it had been well planned and carried out. The general implications were that the workshop objectives had been attained with success and had provided a good base for the seminars to follow.

d. Directed Field Experience

In addition to developing a list of personal objectives during the workshop, each extern prepared a local plan of action which became the guide for comprehensive program planning and evaluation effort relevant to the needs and situation in his school. These plans included such activities as using staff and citizen advisory committees, developing statements of program philosophy and objectives, ascertaining student needs and job opportunities, conducting followup studies of former students, developing and using evaluation instruments, formulating long-range plans, establishing a job placement service for students, and developing an occupational information center.

Each extern prepared a minigrant proposal for prospective funding by the Arkansas Department of Education. These projects related and contributed to the local plan of action. The majority of the externs submitted proposals that were funded up to $500 to conduct research related to local program planning or evaluation activities to improve local programs.

Special assistance was provided the externs by members of the extern program staff through regular visits to their respective schools. A report was prepared following each visit for the purpose of maintaining a record of progress of each extern in carrying out the plan of activities. Each participant submitted a written progress report at the end of the first semester of the academic year 1971–72 and a final report at the end of the program.

e. Weekend Seminars

During the 1971–72 academic school year, 12 2-day—Friday-Saturday—seminars were planned and conducted at different sites and locations over the State in order for the externs to observe a variety of innovative and outstanding vocational programs and facilities. Externs were assigned responsibility to assist in planning, making meeting place arrangements, meals and lodging accommodations, resource personnel, and other general arrangements for the seminars. Each seminar focused upon selected goals and objectives that were determined during the workshop in the summer. The seminars began on Friday morning and extended to noon on Saturday. Generally, Friday morning and afternoon were devoted to observations and discussions of a particular school program and facilities. The evening sessions varied; however, most were planned around a dinner session, followed by a presentation by some resource person, such as a representative of industry, business, educator, or legislator; then informal discussions relating points of the presentation to specific problems and concerns of members of the group. Some of the Friday evening sessions were purposely unstructured to allow for more group interaction and exchange of ideas. Saturday morning sessions focused upon a review and evaluation of the Friday activities in light of the objectives established for the seminar, progress reports by externs, discussion of common problems as well as individual problems, and general planning for the next seminar.

Achievements

The following items represent a summary of achievements by the 14 externs:

a. Developed personal objectives relating to school position for the 1971–72 school year.

b. Developed a comprehensive plan of action, involving program planning and evaluation activities, to be carried out during the 1971–72 school year and reported that 90 percent of the plan was completed.

c. Prepared, or selected, and used an evaluation instrument for the purpose of assessing the occupational aspirations of students enrolled in school.

d. Prepared, or selected, and used a survey instrument to assess the occupational needs and job opportunities in the school-community.

e. Established and operated an advisory committee for vocational education within the school district.

f. Prepared a minigrant proposal for a research project to be funded by the Arkansas Department of Education. Twelve projects were approved and funded; two externs conducted other funded projects and did not apply for a minigrant.

g. All externs assumed a major responsibility in the planning and arrangement for one or more of the weekend seminars.

h. The following is a statement from the final report of an extern which seemed to reflect the general feeling of all participants.

> It is my opinion that the group goals, as set forth for the extern program seminars, have been successfully achieved. Each of the week-end seminars have focused upon specific objectives and in all instances have been met successfully The wealth of knowledge that has been gained from each of the different activities of the Extern Program will have a profound effect upon each of the participants, and upon vocational education generally, within the State of Arkansas.

STATE ADVISORY COUNCIL

In our opinion the most significant contribution of the council in the past 5 years centers around its interest in broadening the availability of vocational training for secondary students. In December, 1972, the council recommended to the State board that a request be presented to the Arkansas General Assembly in January 1973, for increasing available State funds for secondary vocational education programs by $2.5 million. In addition to making the recommendation, the council assumed a leadership role and was successful in getting State funds for secondary programs of vocational education increased from $1,500,000 in 1972–73 to $5 million for each year of the 1973–75 biennium.

Although it has not been possible to fully implement many of the recommendations of the council, the State board is in agreement with most of the recommendations and is implementing them as rapidly as possible. Some changes which are attributable at least in part to their recommendations are:

1. Admission of high school students to postsecondary institutions: Some of the students at some of the schools are accepted only for exploratory courses during hours in which post-secondary students are not in classes. In other instances, secondary students are trained concurrently with postsecondary students. The advisory council is interested in seeing high school students (11th and 12th grades) enrolled for 3 hours per day in actual skill training.

2. Increased emphasis given to career awareness in grades 1 through 6. The council pointed out that its recommendation depends, to a large extent, on involvement of persons outside the field of vocational education. The State board has assigned one staff member full-time responsibility for development of the career education con-

cept, including occupational awareness, and for coordinating the career education efforts of all personnel in the Department of Education.

3. Interest has been increased in implementation of area high school programs of vocational training. Three new area programs were started in 1971–72, and several school districts are attempting to initiate programs in the near future.

SUMMARY AND RECOMMENDATIONS

In summary, enrollment in vocational education, including consumer and homemaking, has increased 31 percent in the past 10 years. Enrollment in occupational training courses, excluding consumer and homemaking, has increased 42 percent. The number of area vocational-technical schools for postsecondary students has increased from 1 to 15. Five area vocational-technical facilities (high school) have been built and programs established.

Persons involved in vocational education in Arkansas recommend the continuation of categorical funding for vocational education. Tremendous progress has been made in the past 10 years in development of a vocational education program that is consistent throughout the Nation but flexible enough to meet the needs of individual States. Although the revenue-sharing approach would provide additional flexibility, we feel that effectiveness would be diminished. We are very much opposed to abandonment of categorical funding for vocational education.

Our recommendation on reorganization and regionalization of the Office of Education is that any arrangement has advantages and disadvantages which makes us reluctant to become unduly concerned about any particular organizational structure as long as the one in use provides a status for vocational education that will allow handling it on an administrative level that will result in progress. However, the constant reorganization that has existed in recent years is very crippling in our opinion to total education as well as vocational education.

Services from our regional office of HEW are more than satisfactory, even with limited staffing.

CALIFORNIA

State Director—Samuel L. Barrett

INTRODUCTION

We are indeed grateful for the opportunity to comment again on the progress and status of vocational education in California and to recommend improvements in Federal programs. It seems appropriate to note that 10 years have passed since the landmark legislation—the Vocational Education Act of 1963—was inaugurated. The outcome of this legislation and its amendments of 1968 has been spectacular growth, not only in numbers of persons trained for occupations, but also in acceptance and support by education, the State legislature, business and industry, and the general public. When such growth is applied to the Nation's most populous State, the result is measurable impact on the problem of delivering a dependable supply of trained manpower for California's huge job market (8,468,000 total civilian employment).

The first 2 years after the passage of Public Law 90-576 were characterized by intense planning, professional development, and operational activity to meet the intent of Congress. The last 2 years were characterized by operational efficiency and accountability for quality programs of vocational education.

Growth in enrollments has been spectacular, and can be directly attributable to substantial aid from the Vocational Education Act of 1963 and its amendments. Enrollment in 1963 was 462,687. By 1968, enrollment jumped to 1,036,086 and to 1,233,920 in 1972, 9-year growth was 165 percent. Projected enrollments by 1977 will be 1,679,115, an increase of nearly 300 percent since 1963.

REGULAR (PART B) PROGRAMS

Secondary Level

Student enrollment in vocational education at the secondary level continues to grow to the point that it is now more than 40 percent of the total grade 9-12 population in the State's comprehensive high schools. The vitality of vocational education in California is exemplified by the degree of commitment school districts have been placing on the occupational preparation of their students. While the total student population of kindergarten through grade 12 is experiencing a slight decline and funds to support adequate education are becoming increasingly scarce, nearly all school districts with secondary schools are maintaining vocational education programs at or above the previous year's level. Table 1 shows the secondary enrollment in job training programs for 1963, 1968, 1972, and 1977 (projected).

Secondary students receive training in seven instructional areas: (1) agriculture, (2) distribution, (3) health, (4) homemaking (gainful), (5) office, (6) technical, and (7) trade and industry.

Agriculture education has witnessed steady growth in spite of a general decline in on-farm employment. One reason for growth in enrollment has been expansion of the multibillion enterprise known as agribusiness, which many students find attractive because of the many opportunities for future employment. Another reason for growth is interest in ecology, of which some aspect is found in many new programs, both in urban and rural schools.

Although certain subjects are basic to any curriculum in agricultural education, the course of study in each high school also reflects the characteristics of agriculture in the district it serves. Thus, agricultural departments in metropolitan areas may concentrate on ornamental horticulture, turf management care of laboratory animals, landscaping, and floral arrangement; departments in major agricultural areas may, on the other hand, concentrate on agribusiness, production agriculture, and related occupations. This approach is realistic and attracts students by making job opportunities more visible to them.

TABLE 1.—ENROLLMENT IN THE REGULAR (PART B) PROGRAM OF VOCATIONAL EDUCATION IN CALIFORNIA SECONDARY SCHOOLS

Instructional area	1963	1968	1972	1977 (projected)
Agriculture education	14, 916	21, 567	34, 828	43, 603
Distributive education	1, 547	12, 290	9, 606	12, 008
Health	804	4, 271	3, 075	3, 844
Homemaking education (gainful)	(1)	(1)	8, 946	11, 183
Homemaking education (useful)	(2)	(2)	(2)	------------
Office education	(1)	136, 615	185, 498	231, 873
Technical education	5, 864	3, 701	1, 011	1, 274
Trade and industrial education	23, 598	26, 276	77, 140	79, 069
Other (work experience education, and so forth)	(1)	23, 128	74, 068	92, 585

[1] Information not available.
[2] Refer to table 5.

Distributive education programs are conducted in the high schools to enable students to enter occupations related to sales, marketing, and distribution. Employment opportunities are many, considering some 750,000 Californians hold positions in this category. Labor market projections indicate a replacement need for about 100,000 persons in 1973 and about 250,000 in 1977. There remains a need to greatly expand programs of distribution education at the secondary level.

Health occupations education is another area which should be expanded at the secondary level. There is widespread interest among high school students for job preparation programs that will enable a graduate to enter a health occupation or to gain advance training and licensure in a health program in a community college. Until recent years, health occupations programs were rarely found in the high schools. With recent national and State emphasis on health care services, new programs for high school students have been established. A health careers program for secondary schools in the

Los Angeles area is being implemented. Eight secondary schools and 300 students are involved in this program. Training is offered for such occupations as pharmacy aide, environmental worker, cardiopulmonary aide, medical records aide, nurse aide, licensed vocational nurse, and rehabilitation aide. Plans are to involve 50 to 60 percent of California secondary school districts in a similar program by 1975.

Home economics occupational education continues to expand. Among instructional programs having the highest enrollment were: (1) Care and guidance of children, (2) clothing management and production, (3) food management production and services, (4) home furnishing, equipment, and services, and (5) institutional and home management, and supporting services. Continuing to capture student interest were programs related to the care and guidance of small children. Persons trained in this field find ready employment in nursery schools and child care centers.

Office occupations education in California secondary schools prepares students for entering employment in office-related occupations. This subject-matter area has the largest enrollment at this level. Employment in the office occupations in California approximates 1,300,000 persons. Labor demand projections indicate that the replacement need for employees in these occupations is approximately 250,000 for 1973, rising to 600,000 in 1977. Continual emphasis is placed on simulating actual job conditions, both in classroom arrangement and in job tasks learned. Demonstration programs are identified and visited by educators from other schools for diffusion of exemplary practices.

Although programs in technical education have been outstanding, many will be held at the current level or may be curtailed through 1977. Rapid technological change, newly emerging fields, and deemphasis of some areas are resulting in high unemployment among skilled technicians, and retraining for such occupations as communications, mass media, and environmental support seems to be indicated. Changes in technology and national and State priorities will signal the need for some new pretechnical preparation programs at the secondary level.

Trade and industrial education supplies trained manpower for occupations that function directly in the designing, producing, processing, fabricating, assembling, testing, modifying, maintaining, servicing, or repairing of any product or commodity. The employment demands for this decade will mandate an increase in occupational training in such areas as fire service, law enforcement, hospitality, and recreation, construction, manufacturing, personal services, and transportation.

Postsecondary Programs

According to long-standing tradition and policy, the greater part of postsecondary vocational education in California has been offered in the community colleges. By State law, one of the principal purposes of the community colleges has been to provide vocational training. The other purposes have been (1) to offer courses for those planning to transfer to 4-year institutions of higher education; and

(2) to provide general education courses for cultural, recreational, or civic purposes.

Occupational education in the community colleges has been planned to provide the knowledge and skills needed by a student to obtain a job and advance. This objective has been carried out through short-term certificate programs, apprenticeship education, 2-year occupational programs leading to an associate of arts degree, and courses designed to upgrade employment and to lead to job advancement.

Vocational training has been so combined with the other purposes of the community college that the students pursuing vocational education objectives have been indistinguishable from students pursuing transfer programs or general programs. As the result of this blending of curriculum, students generally are not perceived by the community as being "vocational," thus helping to eliminate lingering stigma associated with misconceptions regarding vocational education. Students are not labeled "vocational," but are just "students," regardless of educational goals. Being able to attend a community college with a 2-year occupational objective is becoming more and more popular for the student and increasingly acceptable for the students' parents.

The importance of postsecondary vocational education to the community colleges is clear when it is realized that of the total 1971–72 enrollment of 851,834, 61.7 percent (525,720) of the enrollees pursued some occupational training goal. Approximately 35 percent of the students were engaged in transfer programs and the remainder obtained general education benefits. (See table 2 for postsecondary enrollment data.)

TABLE 2.—ENROLLMENT IN THE REGULAR (PART B) PROGRAM OF VOCATIONAL EDUCATION IN CALIFORNIA COMMUNITY COLLEGES

Instructional area	1963	1968	1972	1977 (projected)
Agriculture education	613	4,407	9,723	12,154
Distributive education	1,305	63,700	34,672	43,340
Health	4,030	11,537	21,885	27,356
Homemaking education (gainful)	(1)	1,991	10,400	13,000
Homemaking education (useful)	(1)			
Office education	(1)	140,919	109,714	137,143
Technical education	20,993	17,703	35,836	44,795
Trade and industrial education	43,269	64,379	96,548	120,685
Other (work experience education, and so forth)	(1)	321	7,572	9,465

[1] Information not available.

There are 96 community college campuses located throughout the State and are concentrated in metropolitan areas (San Francisco Bay area—18; Los Angeles area—24; San Diego area—7). However, several small communities of 6,000 or less population in rural, isolated areas of the State maintain full community colleges, and are the focal point for occupational preparation for miles around. The community colleges in California comprise the world's largest system of higher education.

Occupational education in the community colleges is grouped in 10 general areas. Accomplishments in each of these areas are discussed as follows:

The field of vocational agriculture is served by 40 community colleges, an increase of three over the past year. One hundred and fifty full-time instructional staff members served 13,397 enrollments.

Distributive education enrollments numbered 56,762 and office occupations education enrollments were 147,984 in 1972.

The health occupations programs in the 96 California community colleges cover 30 separate occupations. This number has increased from 22 in 1969. Programs are mainly day programs, and the enrollees include both postsecondary and adult students. Five dental assisting programs out of a total of 33 offer extended-day education for working dental assistants. One dental hygiene program out of the eight offers extended-day education. Three of the dental laboratory technician programs offer extended-day education to practitioners. The majority of the 20 inhalation therapy programs offer extended-day education to upgrade persons at the aide level. Of 37 medical assisting programs, 7 offer extended-day education. The nursing divisions in 54 participating colleges offer continuing education on a demand basis for improvement of current practice. All of the associate degree and vocational nursing programs make provision for upward articulation. The 25 radiologic technician programs offer extended-day education upon demand from licensed practitioners and medical persons requiring radiologic safety education.

There has been an appreciable increase in numbers of programs in the following health occupations since 1969:

Program	1969	1971
Dental assisting	28	33
Dental hygiene	3	8
Inhalation therapy	3	20
Medical assisting	21	37
Associate degree nursing (R.N.)	44	54
Vocational nursing	56	63
Radiologic technician	13	25
Emergency medical technician	0	6
Psychiatric technician	0	14

The other programs have remained constant, and in some cases have been curtailed due to the studied needs of the local communities through the efforts of the local advisory groups and educational committees.

There is a total of 320 program offerings in health occupational programs in the 96 California community colleges. There were 5,803 full-time students enrolled in the 2-year associate degree R.N. program in 54 participating colleges in June 1972, and 1,902 graduated from these programs. There were approximately 5,100 full-time vocational nursing students enrolled in October 1971, and approximately 4,080 graduated in July 1972.

Core curriculums are being tried in the allied health clusters at the majority of the California community colleges. None has been completely satisfactory at this time, but a foundation program for health science is emerging.

The transitional program in dental assisting at Pasadena City College is still in progress, but has only a limited number of high school students who desire to meet the rigorous discipline of this type of program. Compton College is continuing its readiness program for summer high school enrollees.

Program enrollments in home economics occupational education numbered 44,637 in 1972. The community colleges continued to play a major role in responding to the demands for the preparation of well-trained individuals to be employed in a variety of early childhood education programs. A total of 58 community colleges offered programs related to early childhood development.

Technical education enrollments were 51,742 in 1972. Although specific employment opportunities for graduates of environmental technology programs were difficult to identify, interest in implementing programs remained high. Several local studies have been completed which analyzed opportunities. Recommendations from these studies will provide information upon which to base program implementation and curricula.

With an increasing number of advanced technical training opportunities available, articulation efforts have had to be increased. Results are a better understanding of educational requirements resulting in little or no loss of students' work and credit if they decide to take advanced training.

Trade and industrial occupations education enrollments in the community colleges were 165,774 in 1972.

The State of California Plan for Equal Opportunity in Apprenticeship went into effect in 1971–72. This plan mandates that Joint Apprenticeship Committees (JACs) will bring into their programs a ratio of minority apprentices that is in keeping with the ratios of such minorities in the area of jurisdiction of the JAC. The period for full compliance is the period of apprenticeship in the different trades. Individual community colleges submit an annual ethnic report to the State showing the enrollment of minorities in the various apprenticeship programs.

The acquisition of Federal excess property by many community colleges has greatly increased training opportunities, particularly in trade and industrial education. Equipment, supplies, and materials acquired allowed districts to extend purchases to better serve students.

Individualized and self-paced instruction was initiated in many program areas of industrial education. Several colleges have developed multimedia individualized packages, and utilize an open-entrance, open-exit teaching method. To facilitate development, colleges in several areas of the State have organized consortiums. Packages are exchanged freely among members and are sold for minimal costs to colleges outside the group.

Enrollment in public service programs, including criminal justice education, was 46,371 in 1972. The most significant increase in enrollment was in government supervision and management programs, with a 462 percent jump. Other programs with a sizable increase in enrollment were instructional associate, 55 percent, and instructional media technician, 60 percent. New programs added to the list were gerontology and therapeutic recreation activity leader.

Through a statewide advisory committee under the sponsorship of the Articulation Conference, an articulation agreement that allows a student to progress from the associate degree social services program to the school of social work education at the 4-year colleges was developed. The California Society of Parks and Recreation and the State staff sponsored an articulation agreement recognizing the recreation leadership program as the basic foundation for a 4-year recreation major.

The criminal justice education program in the community colleges was located on 74 campuses and had an enrollment of 41,569 students in 1972.

The State staff, together with the California Association of Administration of Justice Educators, developed and published basic outlines for a new five course core curriculum in criminal justice education. Three new criminal justice manuals were developed by individual community colleges on a project basis.

Fifteen inservice instructor training programs were conducted for criminal justice personnel in cooperation with the University of California at Los Angeles; 450 instructors completed this program. An estimated 13,100 instructional manuals on criminal justice were distributed.

Disadvantaged Students

Vocational education expressly designed to assist disadvantaged persons to achieve success in regular vocational programs is being conducted both as an element of part A (102.b) and part B of Public Law 90–576. Part B programs for the disadvantaged apply to all secondary school districts and community college districts receiving regular entitlement funds for part B purposes. Part A programs, however, are funded on a competitive basis under criteria established to maintain original congressional intent for the use of part A funds.

Prior to 1968, defined disadvantaged persons were involved in vocational education to an unknown degree. Now the level of participation is known by reason of special attention to this category by Public Law 90–576. Defined disadvantaged are now identified and assisted on an individual, prescriptive basis rather than a program or formula basis.

Concurrently with developing methods of defining the disadvantaged, special education programs, services, and activities had to be designed to enable disadvantaged persons to achieve vocational education objectives that would otherwise be beyond their reach. These programs, services, and activities were allowed to include special instructional programs; prevocational orientation programs; remedial instruction; guidance, counseling, and testing services; employability skills training; special transportation facilities and services; special educational equipment, services, and devices; and reader and interpreter services.

If certain disadvantaged persons could not benefit from regular vocational programs to any extent, even with program modifications or special supplementary educational services, those persons could be provided with special programs of vocational education if such programs met with the requirements of the California State Plan for Vocational Education.

Disadvantaged persons could be served in nonprofit proviate schools through the use of part A funds, provided that certain conditions were met, including administrative control supplied by the local public educational agency involved. Local educational agencies could request up to 100 percent of the excess costs of the proposed projects. In addition, the projects had to be described in the local overall plan for vocational education. Project proposals that offered programs, services, and activities to disadvantaged persons residing in the geographic target areas that had high rates of youth unemployment and high rates of school dropouts were given particular attention in the selection process.

The number of disadvantaged served during 1972 in the high schools, community colleges, and adult schools was 174,487 or 14.1 percent of the total number of students in vocational education programs. This number is expected to rise to 184,682 in 1977.

A 1972 study of 28 districts selected at random indicated that major impact has been made in the effort to keep would-be dropouts in school, and more important, to retain them in vocational programs where they will have the opportunity to acquire salable occupational skills.

Handicapped Students

The Vocational Amendments of 1968 (Public Law 90–576) recognized the need to involve more handicapped students in the regular program of vocational education. To insure this involvement, Congress stiupulated that at least 10 percent of the Federal allocation of vocational education moneys provided to local educational agencies be earmarked for handicapped students.

In 1972, the number of handicapped students receiving special educational assistance to help them succeed in a regular vocational or consumer education class was 17,179, or about 1.4 percent of the total vocational education enrollment. Handicapped students were classified typically into one of seven categories: Mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, emotionally disturbed, or other health impaired.

Before 1968, no attempt was made to compile discrete records concerning handicapped students served by vocational education; they were aggregated with other groups in a special needs, category. In 1968, special needs enrollment was 958 for all programs. If three-quarters of this number were handicapped students a liberal estimate, they would represent only 0.07 percent of the total enrollment in vocational education in 1968. The assumption can be made that the handicapped have greatly benefited from earmarked funds. Projections to 1977 indicate 53,251 handicapped persons will be served in California.

Adult Education

Vocational education continues to take a prominent place in adult education in California. The 39 percent of State enrollment in vocational education comes from the adult education sector. Both the community colleges and the secondary schools—adult education—offer full- and part-time programs of occupational preparation—refer to table 3.

School and college districts offering adult-level vocational programs are able to design curricula and programs to fit local needs and demands, such as training hours, special equipment and facilities, local building codes, local government licenses and regulations, specific labor needs and requirements, and so forth.

The demand by adults for vocational education determines the nature of the program offerings. The school districts respond to the demand by lengthening or shortening course duration; opening new programs—or closing programs where the demand no longer existed; cooperating with trade unions for establishing programs for apprentices; and conducting manpower training programs in cooperation with the State Department of Human Resources Development and the Manpower Development and Training Unit of the State Department of Education.

One of the vital functions of adult education in secondary school districts is the provision of high-intensity, short-duration occupational training, either for job entry or for advancement. Adult students are typically highly motivated, have immediate needs, are family breadwinners, and have relatively short-term education objectives. These needs are taken into consideration when programs are planned and conducted.

Programs for adults are varied. Adults take training in police radio dispatching, auto radiator repair, finger print classification, wig servicing, consumer education, medical equipment repair, textile production, mail and postal clerk, dry cleaning, garden pest control, machine tool rebuilding and control, school bus driving, and marine pipefitting, as examples.

TABLE 3.—ENROLLMENT IN THE REGULAR (PART B) PROGRAM OF VOCATIONAL EDUCATION FOR ADULTS IN CALIFORNIA

Instructional area	1963	1968	1972	1977 (projected)
Agriculture education	100	1, 311	4, 010	5, 013
Distributive education	46, 759	59, 678	22, 959	28, 699
Health	1, 791	6, 917	12, 266	15, 455
Homemaking education (gainful)	(1)	(1)	6, 227	7, 784
Homemaking education (useful)	(2)	(2)	(2)	
Office Education	INA	58, 458	124, 458	155, 623
Technical Education	39, 975	23, 301	14, 280	17, 850
Trade and industrial education	93, 338	146, 048	101, 494	126, 868
Other (work experience education, et cetera)	(1)	(1)	2, 034	2, 543

[1] Information not available.
[2] Refer to table 5.

Comparing Federal manpower training programs enrollment (excluding MDTA) with adult vocational education enrollment, 16,188 persons completed manpower training in 1968, with a per trainee compensation of $1,085 and 13,844 persons completed such training in 1972, with compensation of $952 per trainee. Enrollment of adults in vocational education in 1968 and 1972 was 410,012 and 310,527 respectively.

Financing

Part B Federal funds are distributed to school and college districts by means of an entitlement of funds based on the criteria of educational level and student population. Equalization factors are then applied to compensate for inequalities in relative wealth and tax efforts of each district. A district would receive its entire entitlement only if it costs for providing vocational programs and services exceeded the amount of the entitlement, adjusted by the equalization factors. Thus, relatively wealthy districts would be required to spend more for vocational education than poorer districts to receive their base entitlements.

All school and college districts are eligible for an entitlement of part B funds. In 1973, only 4 of 360 high school districts chose not to participate in federally aided vocational education. All of the 69 community college districts participated. No high school district received an entitlement of less than $5,000 and no community college district received less than $20,000. Although entitlements in some districts are relatively modest, school administrators have stated their concern for their vocational programs should categorical Federal funds be curtailed or eliminated. The value of Federal seed money to stimulate expansion of vocational education in California public schools and community colleges has not been underestimated.

Table 4 portrays the distribution of funds to populous areas of the State according to Standards Metropolitan Statistical Areas (SMSA's).

TABLE 4.—ALLOCATION OF FEDERAL, STATE, AND LOCAL VOCATIONAL EDUCATION FUNDS TO SELECTED SMSA'S IN CALIFORNIA

SMSA	Federal funds	State and local funds	Percentage of total Federal, State, and local funds	Percentage of total State population
Sacramento	684, 097	5, 648, 193	2. 4	4. 1
Los Angeles/Long Beach	4, 535, 736	49, 418, 641	23. 4	35. 1
San Francisco/Oakland	2, 048, 491	13, 063, 554	5. 8	15. 7
San Jose	423, 827	3, 177, 803	1. 4	5. 7
San Diego	1, 037, 337	7, 198, 232	3. 2	6. 5

Construction and Equipment

Vocational area school construction in 1968 amounted to $7,577,285, of which $2,012,360 was from the Vocational Education Act of 1963, and $5,564,925 from State and local sources. Cost of equipment was $8,982,201, of which $4,633,689 was from Federal funds and $4,348,512 from State and local sources.

Construction of vocational area school facilities was low in the order of priorities in 1971–72. Priority in the distribution of Public Law 90–576 funds was directed to other areas, such as instruction, because California does not construct technical schools or area vocational schools. Vocational education is conducted in the comprehensive high schools and the community colleges. No Federal funds were applied to construction in 1972. Total Federal, State, and local costs for equipment in 1972 were $5,170,627.

PUBLIC LAW 90–576—OTHER FEDERAL PROGRAMS

Exemplary Programs

Exemplary programs and projects funded under part D of the Vocational Education Amendments of 1968 were designed to stimulate the development of new ways to create a bridge between school and work. To be helped were young people attending school, those who had left school by graduation or dropping out, and those enrolled in postsecondary programs of vocational education. Other purposes of part D were (1) to promote cooperation between public education and manpower agencies and (2) to incorporate successful approaches into regular vocational education programs.

Local educational agencies were evaluated during 1972 to obtain factual information about the use of part D funds in California. Three unified school districts, one union high school district, and one county office were involved in this study of eight current projects. This study revealed that each of the eight projects was truly "exemplary" in that each one incorporates unique and innovative approaches to improving and extending occupational learning opportunities for youths and adults. In all but one case, the approach taken was relatively unknown.

In complying with the intent of Public Law 90–576, seven of the eight projects were designed to reduce the continuing high level of youth unemployment. The remaining projects sought to fulfill the intent through longer range goals for students. Numerous districts and schools should profit from the strategy designed from these part D projects. Enrollment was 2,779 in 1972, and is expected to rise to 3,652 in 1977.

Residential Vocational Education

This part of Public Law 90–576 has not been funded. No residential vocational education centers exist in California.

Consumer and Homemaking

Homemaking education enrollment in secondary schools in 1962 was 164,801, which included 50,346 enrolled in reimbursed homemaking programs. Enrollments of adults was 98,078 for the same year. In 1968, prior to the passage of Public Law 90–576, which included part F, Consumer and Homemaking Education, enrollments in homemaking education (useful) amounted to 92,302. This figure increased to 158,328 in 1972, a 72 percent increase over 4 years. Enrollments in occupational home economics in 1972 were 12,265 (see table 5).

The Vocational Education Amendments of 1968 was instrumental in reorganizing and redirecting the homemaking education program in California. A monumental effort was required to change curricula to introduce the new emphasis in homemaking—away from the traditional program—toward emphasis on (1) the consumer aspects of daily living; (2) greater consideration to cultural and social conditions and needs; (3) preparation for professional leadership; (4) preparing youths and adults for the role of homemaker or to contribute to the employability of such youths and adults in the dual role of homemaker and wage earner, and (5) providing educational experiences for persons who have entered or are preparing to enter the work of the home. Massive and widespread preservice and inservice training was undertaken to ensure compliance with congressional intent regarding part F of Public Law 90–576.

Part F, Consumer and Homemaking Education, emphasizes programs and services for persons living in economically depressed areas (EDA's) or areas of high rate of unemployment. Although part F requires at least one-third of the entitlement of part F funds be spent for EDA's, California insists on at least 40 percent be spent for this purpose. Eighty-nine percent of participating secondary districts maintained programs for local economically depressed areas.

In 1972, 87 percent and 39 percent of the secondary districts participated in consumer and homemaking education and occupational home economics, respectively.

Schools and community colleges are reaching out into the community in imaginative and innovative ways to give special assistance to individuals and families in low-income areas. Both urban and rural areas were served. A few examples of programs follow.

1. *Sacramento.*—One consumer economics program was conducted to aid families of low-income areas. Its goals were improvement of diets, reduction of family debts, and improvement of skills in budgeting, buying, and the use of credit. Also included were child development and family health care. Participants responded positively when asked about what they had learned from the program. "I became aware of different aspects of buying, being choosey when to buy, and also not afraid to speak up for our rights," one responded.
2. *Ventura County.*—Project HELP, which provided assistance to 24 teachers in the study of an economically depressed area and in the development of materials for teaching how to use commodity foods.
3. *San Diego.*—A curriculum workshop for the development of bilingual materials.
4. *Arcata.*—A program for 21 young mothers enabling them to learn child care and consumer and homemaking skills and to finish high school.
5. *Fresno.*—In cooperation with the Fresno model city program (part A of the act), 10 paraprofessionals prepared to present consumer information and to use community resources in solving consumer problems.
6. *Bakersfield.*—Preparation of a handbook for community aides providing direction for their work in economically depressed areas.
7. *San Francisco.*—Community education centers using bilingual consumer education materials for Chinese and Portuguese families.
8. *San Jose.*—A consumer and homemaking education program for approximately 30 Mexican-American mothers—former migrant workers—who recently moved to permanent residences.

Several 16 mm motion pictures produced for California secondary schools and community colleges are being introduced into the consumer and homemaking education classroom. One film, "On Your Own," depicts the variety of subjects covered in consumer and homemaking education classes; e.g., comparative shopping, homeownership versus renting, operating child care centers on high school campuses, credit and money management, marriage and family relationships, and so forth. Six more films are devoted to the subjects of consumer fraud, repossession, advertising, contracts, door-to-door sales, and consumer protection laws.

SHARE, an instructional resource center for Consumer and Homemaking Education teachers in California, has been established. The resource center is a repository for materials, teaching techniques and strategies. It is anticipated that teachers will share ideas and techniques in helping to create an active, innovative center that will assist teachers in their classroom instruction.

MATCHE, Management Approach to Teaching Consumer and Homemaking Education was fun[redacted]n fall, 1972 under part F of the Vocational Education Ac[redacted]68, and began the development of a prototype model for [redacted]ce teacher training for home economics. Phase I of MA[redacted]s for planning of a prototype with a management suppor[redacted]providing a systems approach for developing the model.

The prototyp[redacted]el has as its goal the training of teachers who will be able to effectively: (1) Teach in economically depressed areas; (2) integrate consumer education into the homemaking program; (3) teach home economics related occupational programs; and (4) establish youth groups as an integral part of the consumer homemaking program. The model or any of its parts will be available for use by teacher education ~~institutions~~.

Inservice education for home economics related occupations is coordinated by staff located at San Francisco State College. Courses have been developed for teachers in the areas of food and hospitality education, employment for child care aides, fashion merchandising, and health services. Instructional materials and home economics occupational program publications also were developed.

TABLE 5.—CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS ENROLLMENTS

	1962-63 Vocational home conomics	1967-68		1971-72					
		Home economics useful employment (home making)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	50,346	92,302	(1)	158,328	29,340	2,446	12,265	3,227	493
Adult	98,078	104,525	(1)	31,778	(2)	(2)	5,734	(2)	(2)
Total	148,424	196,827	(1)	190,106			17,999		

[1] Refer to tables 1 and 3.
[2] Information not available.

Cooperative Vocational Education

Cooperative vocational education, part G of Public Law 90-576, is a specialized form of what in California is called work experience education. Work experience education served 23,467 secondary students in 1968, and 103,000 secondary and community college students in 1972. Enrollments in part G programs were 6,316 in 1972, and are projected to be 8,646, in 1977.

Part G cooperative vocational education programs in California combined related vocational classroom instruction with on-the-job employment experiences directly related to a student's occupational objective. The term "cooperative" is used to describe the relationship of the school and business and industry working together to prepare a student for his selected vocation.

In the classroom the teacher or teacher-coordinator provides vocational education instruction directly related to employment experiences. Regular parttime employment enables the student to develop and refine those occupational competencies needed to acquire a job, adjust to the employment environment, and advance in the occupation of his choice. Instruction on the job is supervised by the training sponsor—an employer or employee—who works closely with the coordinator or teacher-coordinator in planning and sequencing learning experiences appropriate for the student and compatible with his goals and those of the employer.

The principal purpose of part G programs was to increase opportunities for vocational education students to participate in cooperative vocational education programs throughout the State, especially in those areas that had high rates of school dropouts and youth unemployment.

Work-study Programs

Work-study programs were initiated as part H of Public Law 90–576, and while California supported similar programs by the same name in 1963 and 1968, part H, work-study, was a new program with little precedent. Enrollment in 1972 was 2,278 and is projected to be 3,517 in 1977.

Vocational education programs under part H of Public Law 90–576 are designed to provide parttime employment for fulltime students in need of earnings to begin or continue their vocational training. By law, employment has to be with a public institution. Most of the nearly 2,300 students working under part H programs in 1972 were hired by school and community college districts.

To be eligible, students had to be between the ages of 15 and 21 and able to prove financial need in beginning or continuing their vocational studies. As with part A and part G programs, priority for funding was given to areas with large concentrations of unemployed youths and school dropouts.

Benefits to students were financial assistance, realistic work experience, an opportunity to continue in school, and growth in selfconfidence and identity. Also benefitting were school and community college districts, which were able to expand their services because of student assistance. Decreased dropout rates, better student performance, and an improved school relationship with parents and community were also reported by the schools. Parents benefitted indirectly from the financial assistance and other benefits their children received.

Research and Training.

The California Research Coordinating Unit (CRCU) has been the focal point of research in vocational education. This unit administers and monitors part C research projects in the State, consults with all segments of education, assists in the design and initiation of research studies, acquires and reviews research studies, and disseminates summaries and bibliographies of research relevant to California.

The CRCU was instrumental in developing curriculum materials dissemination systems for both business education and consumer and homemaking education.

Small grants of $2,500 per individual were awarded to graduate students who investigated areas of interest in vocational education.

The following are desciptions of three part C research projects completed in 1972:

Location: University of California at Los Angeles
Title: Allied Health Professions Project Secondary Schools Pilot and Demonstration Project
Project No: 19-30049-C038-71

The design of this project provides for the development and testing of a model program that will provide high school students, especially dropouts and underachievers from disadvantaged areas, with the necessary skills and motivation for employment in allied health occupations. This is a multifunded project, with part C funds being used for the research activities within the project parameters.

The purpose of the research portion of this study is to evaluate the experimental basic introduction to allied health curriculum in terms of the effects it has had in motivating students toward choosing and preparing for employment in health care occupations.

Evaluation of the program will be made by measuring students' progress toward the intended objectives of the program, and by comparing the performance and progress of the experimental group who have participated in the program with those of a control group drawn from the same populations and selected to match the experimental group in interest, ability, and education, who have followed the standard general curriculum in the same schools as the experimental group.

Location: Ventura County Superintendent of Schools
Title: The Ventura County Manpower Projection Model
Project No: 56-10561-C007-71

The project is submitted by the Ventura County superintendent of schools office and jointly sponsored by Ventura County community college district with the participation of seven other Ventura County unified and high school districts and the cooperation of the California Department of Human Resources Development.

It is designed to produce and test a manpower projection model for use in the Ventura County standard metropolitan statistical area and its adjacent labor market areas. A variety of techniques will be tested including an industry occupational matrix, employer survey, and extrapolation of trends. The research will identify feasible methods for the use of regional and local educational units in making short- and long-range labor market projections for curriculum and facility planning.

Activities of the project include identification and testing of various projection techniques and the description of a feasible model. A manual suitable for general usage which includes a step-by-step procedure for using the model will be produced. A panel of outside experts will be used to validate both the procedures and techniques.

Results were disseminated by making the manual available to other California educational agencies and by offering a spring and summer workshop for practitioners in 1972.

The results of this research can improve the planning capabilities and effectiveness of vocational educators in Ventura County and throughout the State.

Location: Santa Barbara County Office of Education
Title: A Proposal for the Research and Evaluation of Follow-up Studies of High School Graduates Using Sampling Methods
Project No: 42-10421-C048-72

The project has been designed to study the feasibility of using statistical sampling techniques to obtain followup information about job placement and progress of high school graduates. The intent of the project is to determine: (1) the particular methods that can be applied; and (2) the percentages of pupils that are required to be in samples for various vocational programs, in order to obtain the same information that would be gathered from a followup study of all the graduates of a given school district or area. A study will be made of the costs of using sampling methods in comparison with the costs of obtaining information through the traditional attempted followup of all pupils in given programs and/or graduating classes.

Basic information will be collected from at least 95 percent of the 3,800 pupils who graduated in 1970 and 1971 from high schools in two districts in Santa Barbara County. Information will be gathered by personal interview, telephone interview, and questionnaire. School records of the pupils will be analyzed and relationships developed between actual occupational activity and vocational training received in high school. Statistical procedures will be applied to the basic information to determine the optimum sampling procedure, and size of pupil sample, for the various high school vocational programs, and pupil and community characteristics. Information obtained from sampling will be compared with the basic data compiled for the 3,800 pupils who graduated in the classes of 1970 and 1971 to determine the degree that the information obtained from sampling is representative of data obtained from a followup study of the entire graduating classes.

The product of the study will be a tested model, complete with a manual of instructions, for a method of obtaining realistic, reliable information about employment activities of pupils who received vocational education in high school, by sampling techniques rather than by total followup studies.

California Advisory Council on Vocational Education

The California Advisory Council on Vocational Education and Technical Training is a 30-member advisory body appointed by the Governor. The council has been increasingly approaching its promise. Through its comprehensive representation, the many public needs for vocational education are constantly being brought to the attention of the State board staff. Moreover, their participation in the evaluation process insures greater visibility to the program of vocational education in the State.

Annually, the California Advisory Council on Vocational Education and Technical Training prepares a report concerning its findings on the effectiveness of the total program of vocational education in California.

The California Advisory Council on Vocational Education and Technical Training was provided for in Public Law 90–576 and is established under the California statutes, education code section 6252. The purpose of the council is to: (1) Advise the State board of education and the board of governors of the California community colleges in the development and preparation of annual and long-range State plans for occupational education and training; (2) evaluate programs of occupational education and training maintained by local educational agencies, and publish and distribute the results; and (3) prepare and submit through the State board of education and board of governors of the California community colleges an annual evaluation report to the legislature, U.S. Commissioner of Education, and National Advisory Council on Vocational Education.

The council's findings and recommendations are carefully analyzed by the State board staff and decisions are made as to disposition. These reports have proved both constructive and useful for planning.

SUMMARY AND RECOMMENDATIONS

California has a long and colorful history in vocational education, beginning with the San Francisco Mechanics Institute in 1854 through the years to the present, with more than 1.25 million students enrolled in occupation-centered curriculums in the State's 763 high schools, 96 community colleges, and 193 adult schools. With improving employment opportunities and declining unemployment, couplied with shifting job markets, California must have a dependable supply of workers who have job-entry level skills or who can be retrained. Increasingly, employers are depending on the public schools and community colleges for training prospective employees in specific skills.

The schools and community colleges are meeting the challenge through joint and area planning for local job markets, professional development of teachers and instructors, articulation between secondary and postsecondary institutions, cooperation with the State employment agency, special emphasis on the disadvantaged and handicapped, consumer and homemaking education, comprehensive evaluation, and assaults on the problem on a number of other fronts.

Suffice it to say that the program of vocational education is needed in California. Statements of support are both widespread and significant. Governor Ronald Reagan; State Superintendent of Public Instruction, Wilson Riles; members of the legislature; prominent members of business and industry; school and community college district superintendents, and noted private individuals alike have offered solid support for the purposes and prospects of vocational education. Too, public opinion toward vocational education appears stronger in light of changes in societal values.

It is obvious to say that the Vocational Education Act of 1963 and its 1968 amendments have made a significant impact on the economy of California. All too often, vocational education, strengthened by Federal aid, is taken for granted. Persons with State responsibility for administration of Federal vocational education funds have a vantage point to perceive, even down to the classroom level, what would happen to the program of vocational education if Federal funds designated for it were eliminated or cut back, or even if the priority for vocational education were subjected to competition with other priorities in education.

It appears appropriate now to comment on the Vocational Education Amendments in 1968 and the special revenue-sharing feature of the Better Schools Act of 1973. Experience in California has shown the present arrangement of a block grant for regular, ongoing occupational preparation programs plus the special categories for innovative, exemplary, and target area efforts is altogether satisfactory in meeting the State's manpower and societal needs and challenges. Projections of labor demand in this State with its high population, high urban concentration fluid job markets, and mobile populace point to one conclusion: the State will need more resources from a supply that is established and dependable. It is therefore recommended that Public Law 90–576 be continued with funding levels commensurate with evident need. Further, funding should be settled 1 year in advance to avoid casualties in planning.

Career education should be recognized separately from vocational education by enacting legislation to further test its promise. Sufficient funds should be appropriated to cover the magnitude of this undertaking.

If special revenue sharing is inevitable, vocational education should receive special attention in the distribution of Federal funds, and the funds should be no less than currently authorized. Funds for the development of comprehensive career education in this case should be added to the vocational education categorical funds to augment career education development efforts already underway.

COLORADO

State Director—M.G. Linson

INTRODUCTION

Mr. Chairman; members of the committee, I appreciate the opportunity to speak in behalf of the Vocational Amendments of 1968 (Public Law 90-576) and to report the excellent progress which vocational education has made in the State of Colorado in recent years.

The U.S. Congress, by enacting the Vocational Education Act of 1963 and the 1968 amendments to this act, provided the leadership for a substantial expansion and improvement of occupational training. The results in the State of Colorado are impressive. Briefly, occupational training is now available to many more people than ever before, the individual has a much greater choice of occupations, and the quality of training is greatly improved.

The growth can be measured in enrollments, in the number and variety of vocational programs, and in the number of schools and colleges which provide vocational training. There have been substantial increases in all of these areas.

Comparison of total vocational enrollments

1963	54, 539
1968	77, 788
1972	101, 332
1977 (projected)	141, 305

The table above shows how enrollments have increased since enactment of the Vocational Education Act of 1963, and contains a projection for 1977. A large percentage of the enrollees are now actually people who have completed their training in vocational education and have become productive, employed citizens who pay taxes and contribute to the economy of the State and the Nation.

The true measure of the quality of occupational training is the employment success of its graduates. Followup studies now underway in Colorado in the early returns are very encouraging.

Evaluation of individual programs by qualified teams shows a marked improvement in the quality of training. The Vocational Education Act of 1963 and the 1968 amendments have done much to stimulate professional development, vocational guidance, innovative programs, facility improvements, involvement of employers and actual workers, and other methods of improving the training of skilled workers.

a. Job Training Enrollments

In accordance with the suggested format for this report, we submit the following information on job training enrollments for the State of Colorado:

	Secondary enrollments			
	1963	1968	1972	1977 (projected)
01. Vocational agriculture education	2,364	2,794	3,245	4,580
04. Distributive education	1,302	2,475	3,780	5,724
07. Health occupational education		56	669	1,220
09.02 Occupational home economics education		243	1,724	2,371
14. Business and office occupational education		6,714	11,394	16,429
16. Technical education			167	240
17. Trade and industrial education	524	2,396	9,451	13,525
Total	4,190	14,678	30,435	44,089
	Postsecondary enrollments			
01. Vocational agriculture education	13	140	342	482
04. Distributive education	75	611	1,016	1,538
07. Health occupational education	416	1,448	2,386	4,350
09.02 Occupational home economics education		89	426	586
14. Business and office occupational education		2,107	4,562	6,575
16. Technical education	880	1,800	2,729	3,927
17. Trade and industrial education	1,850	2,915	3,407	4,876
Total	3,234	9,110	14,868	22,334
	Adult enrollments			
01. Vocational agriculture education	822	680	735	1,038
04. Distributive education	6,864	4,138	6,035	9,138
07. Health occupational education	15	258	565	1,030
09.02 Occupational home economics education	75	575	758	1,043
14. Bussiness and office occupational education		7,332	4,368	6,296
16. Technical education	1,246	825	1,760	2,533
17. Trade and industrial education	14,868	8,525	6,568	9,399
Total	23,890	22,333	20,789	30,477

b. General Description

Secondary vocational program enrollments made spectacular growth in the last 10 years, as shown, advancing from 4,190 to 30,435. The number of school districts which provide occupational training has grown accordingly. In the fiscal year 1972, vocational education was provided for secondary students in 154 of the 178 Colorado public school districts which maintain high schools. This compares with approximately 110 districts which provided some type of vocational training in 1963.

Colorado is approaching one of its principal goals for vocational education—to make this type of training available to all, with enrollments of at least 50 percent of all high school juniors and seniors in occupational programs of their own choice.

The contractual programs have done much to advance the State toward this goal. By contracting with area vocational schools and community colleges, small and medium-sized high schools can increase occupational offerings to their students substantially. For example, Swink High School in southeastern Colorado, has fewer than 100 senior high school students, yet it provides skill training in 12 different occupational areas. Only two are available in Swink's own facilities. Students are bused to the Central Arkansas Valley Occupational Center at Otero Junior College for training in the other 10 areas under a contractual agreement. Contract programs similar to Swink's have become common throughout Colorado. Larger high schools also use contract education to supplement their own vocational offerings, thus increasing the occupational options of the students.

These increased opportunities for students in high schools of all sizes are made available at a nominal cost.

In areas presently too distant from community colleges and area schools for feasible busing, mobile units are used to provide occupational facilities. The units are complete shops, offices, and laboratories, with adequate training stations and necessary classroom space. One unit normally operates at one high school in the morning and moves during the lunch hour to another high school for the afternoon session. In the evenings the mobile units are available for adult classes.

Efforts are now underway to articulate occupational education wherever possible. Now under construction on adjacent sites just west of Denver are comprehensive vocational buildings of the Community College of Denver, Red Rocks Campus, and the Warren Occupational Technical Center of the Jefferson County Public Schools. There will be no duplication of programs in these two facilities. Programs of both facilities will be equally available to the secondary students of the Jefferson County Schools and the post-secondary students of the Community College of Denver. A student in any of nine Jefferson County high schools can select his occupational training program from 66 programs at the two vocational schools, as well as those operated by his home high school.

c. Postsecondary Courses

Postsecondary vocational education in Colorado has nearly matched the spectacular growth at the secondary level.

In 1963–64, the State had only six 2-year colleges. They were junior colleges, operated by local districts, with very limited vocational offerings. There was only one institution in the Denver area which provided occupational training beyond the secondary level. This was the famous Emily Griffith Opportunity School, whose programs were almost entirely at the adult level.

Enrollment in Colorado postsecondary vocational programs was very small, and the few available programs were of the standard, traditional pattern.

By 1972 the number of postsecondary schools had increased to 13 community colleges on 16 campuses, and four designated area vocational schools operated by local school districts. In addition, one 4-year college provided vocational training in an area vocational school. Most of the older colleges had greatly expanded their vocational departments. All of the newer ones were strongly oriented to occupational training from the beginning. Emily Griffith Opportunity School was offering postsecondary occupational instruction as well as contracting to train students from some of Denver's secondary schools.

By 1972 vocational enrollments at the postsecondary level had increased nearly 5 times—to 14,868.

Colorado's system of community/junior colleges and area vocational schools encourages vocational programs in the newer job fields. Programs in public service occupations, environmental activities and health occupations, and new technologies are planned, nurtured and expanded at the postsecondary level.

d. Disadvantaged Students

There were very few students in the category of special needs during the early years after enactment of the Vocational Education Act of 1963. It has taken time to identify students who need special training, to locate and recruit instructors with special abilities needed to train the disadvantaged, and to develop appropriate training programs.

Enrollments in disadvantaged programs

1963	(1)
1968	582
1972	3, 185
1977 (projected)	4, 628

[1] The first records of Colorado special needs enrollments, made in 1964, listed 730 students in both handicapped and disadvantaged programs.

As the above figures indicate, many of the problems have been overcome and students with disadvantages which require special programs are being trained in increasing numbers to fulfill their role of successful citizens in our society.

Special summer programs have been an effective method of training disadvantaged youth so that they can take their places in regular programs during the school year.

Particularly in rural areas part G cooperative programs encourage the placement of disadvantaged students in on-the-job training positions which fit their abilities and interests and enable them to progress at their own speed in developing employable skills.

The Denver Metropolitan Youth Center is a school for dropouts, operated jointly at several locations by the Denver and Jefferson County public schools. Enrollment is voluntary, although limited to young people who have been out of high school for at least 6 months. There is a waiting list of prospective students. Students select their own programs, assisted by vocational counselors. This school, and others like it, has two types of successful "graduates"—those who complete skill training and find employment and those who decide to return to their high schools and complete requirements for a high school diploma.

In Adams County, in the northern part of the Denver metropolitan area, a school district's dropout school increased its capacity by enlisting the facilities and training personnel of the Colorado Air National Guard for vocational training of dropout students in many occupational areas. Here, a 1-to-1 instructor-student ratio produced outstanding results for a very small expenditure of special vocational funds.

The flexibility of the community college system, which adapts its curriculum, facilities, personnel, and school terms to fit the needs of the individual student, rather than forcing every student to fit the same rigid instructional pattern, encourages successful skill training of the disadvantaged. A student can begin training at any time. There is a staff of qualified people to assist him with his special problems. His training is completed whenever he's ready for employment.

e. Handicapped Students,

As with the training of the disadvantaged, there were numerous difficulties in establishing special training programs for handicapped persons in the early implementation of the Vocational Education Act of 1963, as the following statistics show:

Enrollments in handicapped programs

1963	[1]
1968	518
1972	2, 742
1977 (projected)	4, 838

[1] The first records of Colorado special needs enrollments, made in 1964, listed 730 students in both handicapped and disadvantaged programs.

The Colorado Board for Community Colleges and Occupational Education, cooperates with both the State Department of Vocational Rehabilitation and the Special Education Division of the State Department of Education in a work experience type program which has produced maximum benefits and greatest possible services to handicapped persons.

A handicapped program which has received regional and national acclaim is the Community College of Denver program for the hearing impaired. This program provides the services which a person with hearing defects needs to compete successfully with hearing students in regular vocational training. The services include tutors and interpreters. Many college instructors have been trained in the use of sign language.

The success of this program has led to the establishment of a center for physically handicapped students on the permanent Red Rocks campus of the Community College of Denver, which is now under construction. This center is expected to open in early 1974. It will provide a large number of services for people with a great variety of handicaps so that they, like the hearing impaired, can compete successfully with ablebodied students in regular occupational training. The services will include tutors, bus service to any of the three college campuses, a prosthetic appliance repair shop, special tools designed for use by the handicapped, and a specially equipped rest area.

f. Adults

ENROLLMENTS IN ADULT TRAINING PROGRAMS

		1963	1968	1972	1977 (projected)
01.	Vocational agriculture education	822	630	735	1, 038
04.	Distributive education	6, 864	4, 138	6, 035	9, 138
07.	Health occupational education	15	258	565	1, 030
09. 02	Occupational home economics education	75	575	758	1, 043
14.	Business and office occupation education		7, 332	4, 368	6, 296
16.	Technical education	1, 246	825	1, 760	2, 533
17.	Trade and industrial education	14, 868	8, 525	6, 568	9, 399
	Total [1]	23, 890	22, 333	20, 789	30, 477

[1] What appears to be a decline in enrollment actually results from 2 causes: 1. With the expansion of community junior colleges and area vocational schools, many programs traditionally classified as adult programs are now operated by community colleges and area schools and, as such, are classified as postsecondary. 2. Because of a change in reporting methods, only those adult programs which receive State and Federal reimbursement have been reported in recent years. Actually, adult training and the need for it continues, enough that schools continue to provide many adult programs without the assistance of State and Federal funds. Adult vocational training is particularly important in the retraining of people whose skills have been made obsolete by economic changes.

The data for adult vocational programs show the numbers reported on our regular State reporting forms. No records were compiled on the employment status of the enrollees.

g. Financing

(1) The State plan for vocational education established a rather comprehensive formula for distribution of part B funds for vocational programs. The formula considers the following four factors which are weighted in setting percentages of reimbursement to the local education agencies. These factors are manpower needs, vocational education needs, relative ability to pay, and excess costs.

As the above indicates, each local agency's financial abilities were considered in the funding process and measured by the appropriate guides. The formula and its use has provided equitable treatment of the local agencies in funding vocational programs.

LARGE CITIES OF COLORADO (1971–72)

	Total funds		Federal funds, amount	State funds, amount
	Amount	Percent		
Funds:				
Cities over 250,000, Denver	1, 913, 836	17	952, 852	960, 984
All other counties	9, 321, 777	83	3, 949, 472	5, 372, 305
Total State	11, 235, 613	100	4, 902, 324	6, 333, 289
Population:				
Cities over 250,000, Denver (514,678)	540, 412	23		
All other counties	1, 760, 695	77		
Total State (2,207,259)	2, 301, 107	100		

As shown in the above chart, only one city in Colorado has in excess of 250,000 population. There is a slight disparity between population percentage and funding percentage. Several reasons might be cited but the basic one is that the city of Denver has enjoyed a rather significantly advantageous tax base and has been able to support a greater part of the costs of their programs. The types of programs operated have also been a factor.

POOR RURAL AREAS IN COLORADO (1971–72)

	Total funds		Federal funds Amount	State funds Amount
	Amount	Percent		
Funds:				
Poorest rural areas (depressed areas—State plan):				
Archuleta County				
Conejos County				
Costilla County				
Huerfano County				
Saguache County				
Crowley County				
Total	262, 274	2.3	145, 542	116, 732
All other counties	10, 973, 339	97.7		
Grand total	11, 235, 613	100		
Population:				
Archuleta County	2, 733			
Conejos County	7, 846			
Costilla County	3, 091			
Huerfano County	6, 590			
Saguache County	3, 827			
Crowley County	3, 086			
Total	27, 173	1.2		
All other countries	2, 273, 934	98.8		
Total State	2, 301, 107	100		

To show the poorest rural areas in Colorado, the six designated as economically depressed counties were shown. The disparity is slight between population percentage and funded percentage. The items which assisted in getting the funding percentage up were the types of program operated and the relative ability of the local district to pay.

h. Construction and Initial Equipment

Fiscal year	Total funds	Federal funds	State funds	Local funds
1963	(1)	(1)	(1)	(1)
1964	(1)	(1)	(1)	(1)
1965	$542,000	$271,000	(1)	$271,000
1966	947,500	469,000	(1)	478,500
1967	800,000	400,000	(1)	400,000
1968	429,706	214,853	(1)	214,853
1969	400,000	200,000	(1)	200,000
1970	1,890,110	583,290	(1)	1,306,820
1971	3,668,470	1,076,055	(1)	2,592,415
1972	5,028,650	1,543,978	(1)	3,484,672
1973 (projected)	1,439,394	475,000	(1)	964,394
1974 (projected)	1,099,091	630,000	(1)	1,279,091
1975 (projected)	3,787,879	1,250,000	(1)	2,537,879
976 (projected)	5,454,545	1,800,000	(1)	3,654,454
977 (projected)	2,272,727	750,000	(1)	1,522,727

[1] None.

Designation of area vocational schools in Colorado has expanded the need for construction funds as well as for funds for initial equipment. Still more funds will be required as additional area schools are designated, and until such time as the estimated maximum number has been reached.

The sheer growth in programs and numbers of students naturally and logically entails additional funds for vocation equipment as progress continues in the State.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

The following categorical programs authorized under the Vocational Amendments of 1968 will be discussed individually:

a. Exemplary Programs and Projects

Enrollments in exemplary programs and projects

1963	—
1968	—
1972	1,485
1977 (projected)	1,860

The number of students involved in the limited exemplary programs in the State has been small because of limited funds. However, some of the projects—the career education program at Holyoke, Colo., for example—have produced excellent results. Holyoke schools operate the State's only fully implemented career education program. A significant result has been a change of attitude on the part of academic members of the Holyoke faculty. These teachers began to realize that the occupational approach in career education projects not only helps in the development of career objectives but it also is a means of stimulating interest in academic subjects.

The success of the world of work programs in construction has created a demand for more training of this type. These programs enable students in the lower secondary grades to explore various occupations, with some hands-on experience in each.

b. Residential Vocational Education

No residential vocational schools have been established in Colorado to date. Some preliminary planning has been done. The possibility of one or two such schools merits further serious study and consideration.

c. Consumer and Homemaking Education

	1962-63 (fiscal year 1963) vocational	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
				Part F—Consumer			Part B—Occupational		
		Useful employment	Gainful employment	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	9,779	13,249	609	13,748	35	....	1,374	139	65
Adult	13,446	12,500	575	14,117	790	....	723	85	43
Total	23,225	25,749	1,184	27,865	825	....	2,097	224	108

As in other occupational areas, the development of special training for the disadvantaged and handicapped in the field of home economics has been gradual. Currently, however, a third of all funds for consumer and homemaking education is used for programs for the disadvantaged and in economically depressed areas.

This new emphasis has had an impact on consumer and homemaking education as a whole. Flexible programing has replaced the traditional foods and clothing curriculum. New programs are designed to fit the needs of particular students or groups of students.

In programs for the disadvantaged, particular emphasis is placed on consumer education, family management, and homemaking skills, with particular consideration for inadequate family income, part-time employment of the homemaker, broken homes, and similar factors typically found in disadvantaged communities.

The success of a program in training homemaker aides in the Denver metropolitan area has resulted in the establishment of similar programs in community colleges in several parts of Colorado. Men and women from depressed neighborhoods were trained to provide homemaking services for disadvantaged shut-ins and handicapped people. Nearly all have found employment with housekeeping firms, rest homes, State and municipal welfare agencies, or are self-employed. This service is credited with keeping together many families who could not otherwise maintain a household. As another result of the Denver program 89 people were able to withdraw from welfare rolls and become self-sufficient.

Training in the fundamental tasks of food service has enabled a number of mentally retarded persons to find employment. It was found that many of these people could perform satisfactorily, and with pride, work in restaurants and institutional kitchens which other workers found tedious and tiresome.

d. Cooperative Vocational Education

Enrollments in cooperative part G programs

1963	-----
1968	348
1972	1,530
1977 (projected)	4,140

The above enrollments are for cooperative programs authorized under part G of the Vocational Education Act and do not include cooperative programs in other vocational areas. These "Co-op G" programs are located in places where there is much youth unemployment, in economically depressed areas, and under other conditions which make this type of cooperative training possible instead of a regular cooperative program. It has the same advantages as regular cooperative education—that of placing a youth in an occupational area which he desires but which his school does not offer; of completely individualized instruction under actual working conditions with a trained worker as supervisor; of a completely realistic training situation, a part-time income, an opportunity for advancing from a training situation to permanent employment at the same job.

The manager of a Denver furniture manufacturing company trained two students from Denver North High School to operate power sewing machines. "This is our first experience but we want more," he said. "And, while you're at it, can you place a student in a training position in our office?" Every cooperative education coordinator, whether in the Co-op G or regular areas, can tell stories like this.

e. Work-study Programs

Enrollments in work-study projects

1963	-----
1968	277
1972	436
1977 (projected)	3,610

Although the results from this section of the Vocational Education Act have never received the wide acclaim and attention which some other sections have, it is a very important one. Over 400 students in Colorado were enabled to stay in a vocational training program in 1972 because of it. The many fine success stories resulting from this part of the act seldom become public. While the actual work does not always train students in the skills of their chosen occupations, it is a proven method of developing good work attitudes and good working habits, and it does much to prevent a generation gap. The best way to discover its merits is to talk to some of those students who completed their vocational training because of this bit of assistance.

f. Research and Training

Research funds authorized by the Vocational Education Act, together with State and local funds, have made it possible to maintain an effective vocational research effort in Colorado. The Research Coordinating Unit (RCU), although small in staff members, has encouraged and funded vocational and related research projects through local schools, community colleges, colleges and universities.

The vocational research effort in our State has been focused on applied research projects that will produce programmatic outputs leading to change and/or improvement in vocational technical education. During the last 2 years more than 50 projects have been funded and completed, or are in progress at this time.

One research project, funded jointly by the RCU and the Colorado Division of Commerce and Development, collected data on employment practices of both new industries in the State and of existing industries which were planning expansion. The information generated by this project has proven of great value to vocational planners in Colorado.

Another jointly funded project, in cooperation with the Colorado Department of Labor and Employment, was designed to identify current manpower needs in the health occupations and to project the needs over the next 5-year period. This project exerted an impact not only in planning and projecting health occupations training programs but also on the planning and projections being made by other health agencies in the State.

A third research project that is having a great deal of impact throughout the State is one designed to test strategies for conducting inservice training in career education. To date, more than 700 local staff members of all grade levels have been trained under this project. When career education is implemented in Colorado it is expected that we will experience a tremendous increase in enrollment in vocational programs at all levels.

Other projects could be described but it appears that these three have probably had, or will have, as much impact on vocational education in the State as any others.

It is imperative that a continuance of the 50-percent research funds (part C, 10(B)) be provided for use with State and local moneys to maintain and expand the existing vocational research efforts.

STATE ADVISORY COUNCIL

Since the Colorado State Advisory Council for Vocational Education was organized in early 1969, it has been a most beneficial and effective forum as well as a source of recommendations and assistance. The council comprises represenatitves from all spectrums of the population. They have been active instigators of activities to expand and improve vocational education in Colorado.

One dramatic result of the council's activity has been passage of the Colorado Vocational Act of 1970. This act substantially increased State aid to secondary vocational programs and made possible a large increase in the number of such programs as well as enrollments.

The prime activity of the Colorado Advisory Council has been to evaluate the State vocational education program. Upon its recommendations and with its consultation an evaluation system had been developed and implemented. The State evaluation system was developed in cooperation with the Center for Vocational and Technical Training at Ohio State Univesity. It provides data to the council for evaluation of programs and to the staff of the State Board for Community Colleges and Occupational Education for program planning and management.

Other activities of the advisory council include the initiation of manpower information studies. These studies, conducted with council funds or at their request, have provided valuable job demand information about electronics trades, machine trades, and health occupations. As a result of these studies a more comprehensive research project was implemented. This occupational employment survey is a cooperative effort between the Federal Bureau of Labor

Statistics, the Colorado Department of Labor and Employment, and the State Board for Community Colleges and Occupational Education. Its purpose is to collect job information on all business and industry in Colorado for use in job-demand projections and vocational program development.

The advisory council has been a very active liaison agent among the various education agencies in Colorado and between them and business and industry. As a result, vocational education is gaining stature and importance at all levels. Another result of its activities has been the formulation of a State plan for career education. This plan calls for a cooperative effort to implement career education at all levels.

SUMMARY AND RECOMMENDATIONS

Reports from all the segments of vocational education which are contained in this comprehensive report indicate the healthy condition and continued progress of vocational education training programs in the State of Colorado.

The following observations and recommendations are given for the Committee's consideration.

As was pointed out in the introduction, Colorado has made remarkable growth in providing vocational training for secondary, postsecondary, and adult enrollees as well as for the special segment of handicapped and disadvantaged persons.

Larger enrollments, more programs, new occupational training areas, and stimulating support from State and local governments are all part of the growth picture in this State.

(1) We urge that the Vocational Amendments of 1968 (Public Law 90–576) be continued on a permanent and continuing basis, accompanied by authorization of additional funds as needed. Such authorization should result in better long-range planning for State and local agencies.

(2) Full funding of the authorized amounts in the act (Public Law 90–576) should be reached as soon as possible in order to meet the needs of vocational technical education in America.

(3) Maintain and strengthen the administrative framework and accountability for vocational technical education at the regional and Federal levels. This should not be done under the false guise of adding to one at the expense of the other.

(4) Maintain the plan of designating a single State vocational board in each State to receive and disburse all vocational funds. All Federal legislation should be written so as to assure that this method of operation is maintained.

(5) The matching on a statewide basis of part B funds in the act (Public Law 90–576) has proven quite satisfactory and should be continued.

(6) The provisions of title III of the act (Public Law 90–576) which provide for adequate leadtime, planning, and evaluation are very important. Every effort should be made to continue these provisions.

(7) Vocational education should continue to be an integral part of any and all plans for career education. This is necessary because of

the large percentage of students who will choose careers which require vocational training.

Many other reasons could be cited for continuing a strong vocational education establishment in America. Many of these reasons would be economic. For millions of Americans vocational training is their only hope for a worthwhile, productive life in this country.

The Better Schools Act of 1973 offers no positive benefits for vocational education in Colorado. As far as we have been able to ascertain after studying it, there are indications that this act would materially weaken vocational education in Colorado. This State's vocational education is administered by a board entirely separate from the State department of education.

The passage of the Better Schools Act of 1973 would mean the repeal of the vocational education acts. To wipe out all the separate vocational acts would be a tragic mistake. The worth of this legislation has been proven by more than 50 years of successful operation. One of the real strengths of vocational education during its long and fruitful life has been its partnership concept. The State board for vocational education and local education agencies have prided themselves on the fact that their financial contributions to vocational education have exceeded the input of the Federal Government. The strong relationship linking local, State, and Federal entities has been maintained.

The Better Schools Act of 1973 would actually lessen the amount of available dollars for vocational education. It does nothing to strengthen regional or Federal responsibility and leadership.

Because of the many, many weaknesses of the Better Schools Act, Colorado would join other States in opposing its passage.

We thank you for the opportunity to present this testimony on behalf of vocational education.

CONNECTICUT

State Director—Joseph F. Murphy

INTRODUCTION

The Vocational Education Act of 1963 and Vocational Education Amendments of 1968 have enabled Connecticut to establish many worthwhile goals and to achieve significant progress in working toward these goals.

The succeeding sections of this report address the various areas of activity under this legislation and indicate program growth over the past 10 years along with projected growth in 1977.

An overall picture of total program growth in all State-approved vocational education programs at all levels is reflected in table I enrollment figures:

Table I

1963	36, 542
1968	87, 009
1972	175, 036
1977 (projected)	214, 500

PART B—STATE VOCATIONAL EDUCATION PROGRAMS

a. Job Training Enrollments

Tables II, III, and IV display enrollment growth in Connecticut in occupational preparation programs for each instructional level.

TABLE II.—SECONDARY VOCATIONAL ENROLLMENTS

	1963	1968	1972	1977 (projected)
Agriculture	622	999	1, 600	2, 150
Distributive education	473	2, 294	3, 734	4, 540
Health		247	982	1, 065
Home economics (gainful)		561	638	720
Office		28, 543	46, 860	55, 200
Technical				
Trade and Industrial	6, 623	7, 247	10, 372	12, 000
Totals	7, 718	39, 891	64, 186	75, 675

TABLE III.—POSTSECONDARY VOCATIONAL ENROLLMENTS

	1963	1968	1972	1977 (projected)
Agriculture				
Distributive education		236	304	370
Health	423	895	1, 304	1, 410
Home economics (gainful)				
Office		1, 820	2, 328	2, 700
Technical	1, 469	1, 939	2, 821	4, 100
Trade and industrial	318	328	220	350
Totals	2, 210	5, 218	6, 977	8, 930

TABLE IV.—ADULT VOCATIONAL ENROLLMENTS

	1963	1968	1972	1977 (projected)
Agriculture	359	544	459	605
Distributive education			218	260
Health	258	157	442	475
Home economics (gainful)		33	114	130
Office			1, 629	2, 100
Technical	3, 386	6, 846	7, 387	10, 750
Trade and industrial	13, 962	14, 194	12, 997	13, 650
Totals	17, 965	21, 774	23, 246	27, 970

b. General Description

Because the secondary school population is the largest target group and because the larger number of threshold jobs attract students trained at this level, the greatest emphasis has been placed on the development of occupational training programs at this level.

By far the largest portion of secondary level program growth has been in the local high schools. These programs have increased tremendously especially in the fields of office education, agriculture, distributive, health and trade and industrial. A number of new gainful home economics programs have been introduced to meet needs in such areas as child care and food services. Programs employing a work experience coordinator for diversified occupations also have been strongly encouraged and supported in an attempt to meet the individual occupational training needs of all students.

These local high school programs are in addition to those programs available to all secondary students through the regional vocational-technical schools and regional vocational agriculture centers. These latter institutions are, and have been supported mainly through State funds.

Special efforts have also been made in many communities to provide programs for school dropouts and unemployed youth and adults. These programs have been operated in addition to manpower training courses and the more traditional adult vocational programs of supplementary, preparatory and apprentice training.

c. Postsecondary

The growth of postsecondary programs in Connecticut has been rapid and it is expected that an expansion of occupational programs will continue.

Although Connecticut has provided considerable support to its 4 State technical colleges and 12 State community colleges, the availability of Federal funds for occupational programs has made it possible to expand these programs and to establish placement services for programs graduates and dropouts.

Some of the postsecondary programs for newer and emerging occupations are in the areas of environmental health, community, and mental health, police science, educational assistant, nuclear technician, and various other types of community, social, and health technicians.

TABLE V.—POSTSECONDARY ENROLLMENTS BY TYPE OF INSTITUTION

	1963	1968	1972	(1977 projected)
Community and Junior Colleges		2,297	3,376	3,934
State technical colleges	780	1,764	2,505	3,706
Area Vocational-Technical schools	1,430	1,157	1,096	1,290
Totals	2,210	5,218	6,977	8,930
	1963	1968	1972	1977 (projected)
	1963	1968	1972	1977 (projected)
	1963	1968	1972	1977 (projected)
	1963	1968	1972	1977 (projected)
	1963	1968	1972	1977 (projected)

d. Disadvantaged Students

Table VI below depicts enrollments in programs for the disadvantaged. No figures are available for 1963.

TABLE VI.—DISADVANTAGED ENROLLMENTS

	1968	1972	1977 (projected)
Agriculture	60	88	120
Distributive education	65	1,448	1,860
Health education	86	634	860
Consumer and homemaking	27	25,098	32,140
Home economics (gainful)	105	538	560
Office	475	18,463	23,650
Technical		455	590
Trade and industrial	453	1,801	2,420
Special programs		5,372	6,800
Totals	1,273	53,897	69,000

Vocational education programs for the disadvantaged are mainly concentrated in 15 major school systems in Connecticut and in the State Department of Corrections. These school systems are located in economically depressed areas of high unemployment, high youth unemployment and dropout rate and high population density. Five model cities are included in the 15 districts.

In addition, special programs, for disadvantaged have been operated in local schools, vocational-technical schools, State technical colleges, and other agencies and institutions.

The inclusion of the community need factor (see "g" below) in the Connecticut State plan, the 15 percent set-aside for disadvantaged under part B, and the funds available under 102(b) have insured the fact that people who are disadvantaged and/or living in depressed areas receive a higher proportion of the Federal funds available for vocational education. As a result, increasing numbers of disadvantaged persons are being served in programs designed to meet their specific needs.

e. Handicapped

Table VII shows current and projected enrollments in vocational education programs for the handicapped. No funds and no enrollments were reported in 1963 or 1968 for this category. In 1972, 1,125 handicapped students were served by vocational education. Programs for these persons were conducted in sheltered workshops, vocational rehabilitation centers, special institutions for the handicapped and in local public school systems.

The overall planning of such programs has the result of the joint efforts of vocational education, special education, and vocational rehabilitation personnel.

Experience to date has shown that most handicapped persons can and do benefit from vocational programs when properly trained. Identifying employment opportunities suitable for the handicapped is a more difficult task than for regular vocational students.

TABLE VII.—HANDICAPPED ENROLLMENT

	1972	1977 (projected)
Vocational agriculture		
Distributive education	38	85
Health education		
Consumer and homemaking	67	180
Occupational home economics	184	290
Office education	171	320
Technical		
Trade and industrial	665	1, 225
Totals	1, 125	2, 100

f. Adults

Programs under the Division of Vocational Education for adults included job preparatory, job supplementary, apprentice, and manpower training programs. Since the greatest portion of these programs are operated in the regional vocational-technical schools and State technical colleges through State funding, recent cutbacks in the DVE budget have seriously affected enrollment in many of these programs as reflected in table VIII.

TABLE VIII.—ADULT ENROLLMENTS

	1963	1968	1972	1977 (projected)
Supplementary	15, 203	31, 289	18, 248	22, 820
Preparatory		168	788	870
Apprentice	4, 165	4, 779	5, 794	6, 080
MDTA	1, 200	2, 300	2, 000	2, 500
Totals	20, 568	38, 536	26, 830	38, 270

g. Financing

(i) *Distribution and Matching of Federal Funds.*—See attached sections 3.25, 3.26, and 3.27 of part I of Connecticut State Plan for Vocational Education for detailed description of Matching, Criteria for Determining Relative Priority to Local Applications and Application of Criteria in Determining the Relative Priority of Local Applications.

(ii) There are no cities within Connecticut with a population near or in excess of 250,000.

3.25 *Matching*

3.25-1 *Overall State Matching.*—The State Board shall allocate Federal funds allotted to it under Part B of the Act among local educational agencies for the purposes specified in 124(a) of the Act in such a manner which will result in at least one dollar of State and local funds for every Federal dollar being expended under the State Plan for Vocational Education programs, services, and activities, but not in a manner which will require local educational agencies to match Federal funds at a percentage ratio uniform throughout the State. The procedure for the allocation of Federal funds shall be that identified in Section 3.26.

3.25-2 *Reasonable Tax Effort.*—No local educational agency with taxing authority which is making a reasonable tax effort will be denied funds for the establishment of new vocational education programs solely because it is unable to pay the non-Federal share of the cost of such programs.

Taxable wealth and taxation effort are essential aspects of a community's ability or inability to cope with its needs. A tax effort index will be obtained by dividing the towns grand levy by the equalized grand list. The data necessary for this will be available from the Office of State Tax Commissioner and will be revised annually.

The school districts will be classified according to the extent that their computed tax effort index deviates from the State mean. A town exerting a great effort relative to its wealth would therefore be eligible for greater financial support. Further description of the application of this factor appears in Sections 3.26-3 and 3.27 of Part I.

3.26 *Criteria for Determining Relative Priority to Local Applications*

3.26-1 *Manpower Needs and Job Opportunities.*—In making decisions regarding the allocation of funds among local educational agencies the State Board will give due consideration to information regarding current and projected manpower needs and job opportunities, particularly new and emerging needs and opportunities on the local, state, and national level.

The State Board will identify current and projected manpower needs and job opportunities, particularly new and emerging needs and opportunities through the use of information provided by those individuals and agencies named in Section 1.7 of Part I of this State Plan as well as advisory committees both at the local and state level, research sources, both local, State, and national, and any other sources deemed to be valid.

The allocations of funds among local educational agencies shall take into consideration the information on manpower needs and job opportunities in the long range program plan, Part II of this State Plan. In addition information resulting from the periodic evaluations amplified in Section 1.5 of Part I of this State Plan will be taken into consideration.

All information pertaining to manpower needs and job opportunities will be reviewed and updated annually.

3.26-2 *Vocational Education Needs.*—In allocating funds among local educational agencies the State Board will give due consideration to the relative vocational education needs of all population groups referred to in Section 3.15 of the State Plan in all geographic areas and communities in the State, particularly disadvantaged and handicapped persons and unemployed youth.

The State Board will identify vocational education needs to various population groups to be served by this plan through the use of advisory committees, information supplied by both state and local cooperating agencies, and through the evaluation of both annual and comprehensive plans submitted by local educational agencies. The information gathered from these sources will be considered in formulating the annual and long range program plans. Results of any evaluation made which has relevance to the vocational education of the population groups to be served under the State Plan whether it be local, State, or national, will be taken into consideration in the allocation of funds. Any other information not identified above which assists in solving the problem dealt with in this section will be used when it becomes available. Basic information upon which these decisions are made will be updated annually.

3.26-3 *Relative Ability to Provide Resources.*—The State Board will determine the local agency's ability to provide the resources necessary to meet the vocational education needs in the area or community served by that agency by obtaining annually the grand list of taxable property from the Department of Taxation. This list will then be equalized on the basis of varying assessment percentages.

The factor of equalized taxable wealth shall be measured against the local tax levy. The local agencies shall be classified by standard scores according to their index of tax-effort as measured against their wealth. This weight shall be utilized in the Determination of Community Needs as shown in Section 3.27.

Since the tax burden is a critical aspect of wealth a similar procedure of weighting for the Number of Children on AFDC shall be followed and included in the composite score for the Determination of Community Needs (Section 3.27).

3.26-4 *Relative Costs of Programs, Services and Activities.*—In the allocation of funds among local educational agencies, the State Board will give due consideration to the costs of the programs, services, and activities these local agencies provide which is in excess of the costs which may be normally attributed to the cost of education in such local educational agencies.

The State Board will determine the reasonableness of relative costs of programs, services, and activities through comparison of local costs with average statewide costs for similar programs, services, and activities. These costs will be determined annually.

Excess Cost.—To obtain an exact excess cost would require a separate book- Thus 8/20 represents the normal cost and 12/20 or 60 per cent represents the hibitive to the local and state agencies. However, a fairly accurate estimate of costs can be obtained by breaking down vocational costs into the following components: Personnel; Ancillary; Travel; Construction; Equipment; Supplies; Maintenance and other indirect costs.

A. *Personnel.*—The personnel costs of vocational programs represent a major factor in computing excess costs. This may be arrived at by considering the pupil/teacher ratio of specific vocational programs relative to the average pupil/teacher ratio. An average pupil/teacher ratio for all programs in Connecticut is 20/1. If a teacher-coordinator can handle approximately 48 students per day, his pupil/teacher ratio on the basis of a six-period day would be 8/1. Thus 8/20 represents the normal cost and 12/20 or 60 per cent represents the excess salary cost of this particular program. Constants can be developed for regular vocational programs which indicate the average pupil/teacher ratio. In order to avoid detailed calculation against the variety of salaries being paid (and in order to avoid being trapped in an inflationary salary spiral) it would be advisable to use a salary constant ($10,000) which is comfortably above the state mean salary. In the case cited above it would be assumed that the excess salary for the particular program would be 60 per cent of $10,000 or $6,000.

B. *Ancillary.*—In addition to the costs of instruction, there are excess costs resulting from the need for developing programs or curriculum, graduate placement, submission of proposals, enrollment and graduate follow-up reports, additional guidance effort and other ancillary services essential for the conduct of an approved vocational program. A support constant per student and a constant per program will be provided for these ancillary services. This amount will be set on the basis of experience and the availability of funds. A school system with a variety of vocational programs and large enrollments would receive more funds for the ancillary services.

C. *Travel.*—This cost is supported in order to enable vocational teachers to participate in conferences and meetings so as to avoid instructional obsolescence. A greater amount of money will be provided for teacher-coordinators who find it necessary to visit the training stations of their students. The specified amount will be based on experience and the availability of funds.

D. *Equipment.*—Vocational programs often require specialized equipment in order to provide real learning situations. Cost of equipment will be reimbursed at 100 per cent support in order to avoid the ambiguity of equipment ownership. However, the equipment eligible for reimbursement should be instructional, specialized and represent new types of equipment. Support for equipment shall not be reduced by the Percentage of Support factor but shall be provided according to the availability of funds, the priority standing of the program and community, and the particular needs of the program.

E. *Supplies, Maintenance and Other Indirect Costs.*—Because of the complexity of identifying these expenditures and because of the general nature involved these costs will generally be borne by the local community and will constitute part of the matching requirement.

F. *Construction.*—Funds for school construction are available through State construction grants. However, if there is need for construction or remodeling for vocational programs and if funds are available special arrangements for support will be provided.

3.26–5 *Other Criteria of the State.*—In addition to the criteria listed in Sections 3.26 through 3.26–4 of this State Plan, the State Board will consider the following items in deciding the relative priority of local applications:

A. *Application Approval.*—

1. Is the program designed to provide substantial preparation for entry into the labor market?

2. Has the program been designed to efficiently and adequately prepare youth for further technical education? (General education courses cannot be funded except when special modifications or provisions have been made in order to achieve the objectives of the act.)

3. Does the proposal provide a new program serving additional students?

B. *The Level of Support.*—The level of support shall be based on a formula taking into consideration the degree to which a geographic area is considered depressed, the qualities of the program, and the excess costs.

New programs may receive higher funding than programs which have been in operation previously. The allocation of funds and level of support will be based on the priority ratings as indicated in 3.27 of the State Plan.

3.27 *Application of Criteria in Determining the Relative Priority of Local Applications*

The criteria for determining the relative priority of local applications and the weight values of each criteria item may be viewed in the following charts.

The level of support stated in 3.26–5B of the State Plan will be determined using the priority ratings in these tables.

All programs must meet the objectives of instruction as set forth in the Act and as indicated below:

> Prepare individuals for gainful employment as semi-skilled or skilled workers or technicians or semi-professionals in recognized occupations and in new or emerging occupations, or
>
> Prepare individuals for enrollment in advanced or highly skilled vocational and technical programs, or
>
> Assist individuals in the making of informed and meaningful occupational choices.

Determination of Community Needs.—In order to determine the relative standing of a communities in relation to their needs for which vocational education may provide some alleviation the school districts shall be weighted on the basis of five factors: (1) Unemployment Rate (2) Number of Children on AFDC (3) Number of Youth Unemployed (4) Number of School Dropouts (5) Tax Effort and Wealth.

Composite Rating.—Each town or school district will be rated according to how they stand in comparison to other towns or districts on each of the five factors above. All school districts will appear on a composite listing showing their relative standings in terms of standard scores (a score indicating the extent of the deviation from the State average) on each of the five factors plus the score of the sum of the five factors. A constant will be added to this sum in order to avoid negative scores and to provide flexibility based on the availability of funds. Thus, each town or district will have a community need factor. This list will serve to identify those towns and districts most in need of assistance and provide a basis for determining the amount of support. This list can also serve to identify the funding priorities for those parts of the VEA (exemplary, research, and home economics) for which program priority factors listed below are not relevant.

Determination of Program Priority.—Since the factor of community needs does not indicate the contribution that a specific program may make to meet the needs of student and community it is necessary to assess each program proposal. Once more it is necessary that a program proposal be consistent with the objectives of vocational education as stipulated in the State Plan and in the Federal Act. Programs which meet these requirements will be scored on the basis of the six factors and their relative weights listed below:

Criteria	Weight	High 3	Moderate 2	Low 1
Substantial preparations for job entry	6			
Present occupational need[1]	5			
Degree to which program serves disadvantaged	4			
Occupational growth potential[1]	3			
Prepares for higher technical education	2			
Provides a new program serving additional students	1			

[1] Occupational outlook—Department of Labor (Connecticut).

Substantial Preparation for Job Entry.—This factor will be weighted on the basis of judges who are specialists in the type of program being proposed. Such factors as curriculum, number of students served, meaningfulness of educational experiences, fiscal feasibility, use of advisory committees and the other factors which provide strength to a vocational program. Programs which have been in existence and which are submitted as renewals will be judged on the basis of the previous evaluation. Such factors as enrollment, retention, completions and graduate placements shall be included.

Present Occupational Need.—The occupational need for which this program is designed to meet, will be weighted with the assistance of the Department of Labor. Based on the manpower needs the Labor Department will classify occupations as extreme shortage (3) moderate shortage (2) and low or nominal shortage (1).

Degree to Which Program Serves Disadvantaged.—This factor will be rated as high (3) when the program is developed primarily to serve "nard-core" disadvantaged youth and is modified accordingly and/or appropriate services provided. A rating of 2 will be applied to those programs which predominantly serve the disadvantaged and in which the need of modifications and remedial services is limited. Regular vocational programs which include disadvantaged youth but need no special treatment shall be rated as 1.

Occupational Growth Potential.—This factor shall be rated according to the Labor Department projections with occupations indicated as rapid growth (3), moderate (2), low or no growth (1).

Prepares for Higher Technical Education.—The effectiveness of a program in placing students in two year occupational technical programs shall be judged on the basis of the proposed curriculum and/or the reported placement effectiveness.

Provides a New Program Serving Additional Students.—A program which serves students who have not had an opportunity to enroll in this type of vocational program will receive high rating of 3. A program already in existence but showing a large expansion will be rated 2 and those programs continuing to serve the same number of showing moderate growth will be rate as 1.

Determination of the Amount of Support

The amount of support provided shall consist of the excess personnel cost (see Section 3.26–4) multiplied by the percentage of support obtained from the weighting of Community Need and Program Priority.

The total weight for program priority (range 21 to 63) shall be added to the composite weight for community need (range 5 to 40) and shall constitute a percentage of support. This combined weight must not exceed 100 or 100 per cent. This percentage which has been derived by considering the type of student served, community needs as well as the quality of the effort to relieve these problems will be applied against the excess salary cost of the program in order to indicate the extent of federal/state support to be provided.

An ancillary and travel allowance will be added to this support amount. Funds for equipment and construction will be provided according to the priority status and the availability of funds.

DETERMINATION OF AMOUNT OF SUPPORT (FORMULA)

Formula of Support[1]

Amount of support = [PS(ES) + A] + T

Code:

C—Community needs.
P—Program priority.
PS—Percentage of support.
C + P (not to exceed 100 percent).

		Excess costs
		Number of pupils/teacher for specific vocational program/period
PC	Personnel 1	Number of pupils/teacher for all educational Programs/period
	(Constants to be developed for regular vocational programs and for special disadvantaged, handicapped, and innovative programs)[2]	
ES	(Excess salary) = ...	PC×SC (salary constant)[2].
A	Ancillary	Constant amount per student and per program to cover costs of planning, developing and reporting operations.[2]
T	Travel	Constant amount varying with needs of programs.[2]
E	Equipment	To the extent money is available, 100 percent support will be provided for excess costs of equipment. Priorities are based on area and program factors.
	Supplies	Generally local contributions.
	Maintenance	Local contributions.
	Facilities	Separate funding when monies are available.

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[1] Excluding separate support for equipment and facilities.

[2] These constants depend on the availability of funds and the changing salary schedules and will be revised annually.

Example of Application of Formula

The program Distributive education with 60 students enrolled and a full-time teacher. It will operate in a town which has a C factor of 35 and the program priority has been determined to be 40.

C—Community need weight	35
P—Program priority weight	40
SC—Basic teacher salary	$10, 000
PS—Percentage of support C & P = ...	75%

Excess Cost

PC (Personnel), 100/1— 60/1 = ...	40%
ES (Excess salary) = PC × SC (0.40 × $10,000) = ...	$4, 000
A (Ancillary) = program constant = ...	$100
Pupil constant $5/student × 60 = ...	300
Total ancillary	400
T (Travel) = ...	$200
Formula for support = [PS(ES) + A] + T	
Amount of support = 0.75 × $4,000 = $3,000 + $400 = ...	3, 400
Plus travel	200

Effect of Allocation System on Local Agencies

This system will provide more support in amount and in proportion to the large cities whose financial, welfare, and unemployment problems are comparatively critical. Application of this formula to the five agencies with the greatest need and to the five agencies in the least need will provide the following:

Twenty-five to 30 per cent more support for personnel costs per program to the five most needy agencies.

A higher percentage of support for programs serving disadvantaged youth, because of the greater number of disadvantaged in these needy towns.

Expansion priority for new programs to the needy communities.

Equipment priority to these same towns.

Additional ancillary funds to the needy communities because of the greater number of programs and youth served.

Though these towns (five neediest) received a greater share of the vocational funds last year, application of this formula will further increase their support relative to the funds made available.

h. Construction and Equipment

Since the State of Connecticut has provided considerable support for construction of area vocational facilities, federal funds have been used primarily for program support and for limited equipment. The following table, as far as can be determined, represents state and federal expenditures for construction and equipment. Local expenditure information is not available.

TABLE IX.—CONSTRUCTION AND EQUIPMENT EXPENDITURES

	Federal	State
1963-68	$1,096,750	$5,851,734
1969-72	1,080,291	16,136,288
1973-77 (projected)	2,500,000	36,000,000

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects (Part D)

There were no exemplary projects funded under this category in 1963 and 1968. During fiscal 1972 there were five innovative programs which received State part D funds. Included among these were career education projects in New Britain, Stamford, Waterbury, and West Hartford. Approximately 5,600 students were enrolled in these programs. These were operated in addition to the career education model program in Bridgeport funded through part D discretionary funds directly through the U.S. Office of Education.

In addition to the career education projects, a unique training program was funded for inmates of the Connecticut Correctional Institute in Cheshire. This program enabled prison inmates (16–21 years of age) to be bused from the prison to a nearby vocational-technical school after school hours to receive trade training in any one of five or six trade areas. This program was initiated and operated through the combined efforts and cooperation of the Division of Vocational Education, Division of Vocational Rehabilitation, Connecticut State Employment Service, and Connecticut State Department of Corrections. Approximately 155 students were served through this program in 1972.

b. Residential Vocational Education

There seems to be little or no need for residential vocational schools in Connecticut. The relatively small size of the state with its system of 16 regional vocational-technical schools provides vocational training opportunities to all citizens within commuting distance of their homes.

c. Consumer Homemaking and Occupational Home Economics

Seventy-six programs in consumer and homemaking education were funded in 1972. The major thrust of these programs was directed toward students in grades 6–12. The program is designed to redirect home economics courses to give greater consideration to social and cultural conditions to meet consumer needs.

The program seeks to prepare all youths and adults for a better understanding of the complexities of the marketplace, particularly those who live in economically depressed areas.

Economically depressed areas have received special emphasis in that 41 of the 76 approved programs in Connecticut were in depressed areas. In addition, 15 citywide supervisors and adult coordinators have been identified and funded to give citywide coordination and supervision to consumer and homemaking programs by involving the entire community in making courses available.

Table X shows enrollment growth in this program area by level and by disadvantaged and handicapped. These latter categories were not identified prior to 1972.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

		1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
				Part F—Consumer homemaking			Part B—Occupational home economics		
	1962-63 (fiscal year 1963) vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	7,246	5,640	528	58,760	23,514	67	638	449	168
Adult	1,403	14,462	33	1,584	1,584		114	89	16
Total	8,649	20,102	561	60,344	25,098	67	752	538	184

d. Cooperative Vocational Education

The greatest emphasis in cooperative vocational education in the State has been in the distributive education and diversified work experience programs. The support of these latter programs has involved the use of part B and part G funds for the employment of vocational work experience coordinators in the local high schools.

These coordinators operate programs combining on-the-job training with related inschool instruction, thus providing preparation for employment in any one of the hundreds of occupations for which formal training programs do not exist or are not available within the school setting. The combined school/employer relationship is established and maintained by the coordinator. On-the-job training plans are written cooperatively to insure a dovetailing of school and work educational experiences.

This type of cooperative program, along with the distributive education cooperative program, provides greater relevance of curriculum and contributes to meeting career interest needs of present day youth. In addition to being a significant means of aiding low-income youth, it enables many students who might otherwise drop out of school to earn while they learn job skills.

Table XI shows recent growth in cooperative programs:

TABLE XI

	1963	1968	1972	1977 (projected)
Part B (90-576)	324	1,029	3,857	5,070
Part G (90-576)			2,121	2,790
Total	324	1,029	5,978	7,860

e. Work-study Program

This program has operated in local high schools and in regional vocational-technical schools throughout the State with consultative and administrative assistance provided by the division of vocational education.

The program has provided large numbers of needy youth with worthwhile work experience which not only has served to keep them from idling away their spare time, but has provided the necessary financial support for their continuance in school and in vocational education programs.

While the quantitative aspects of this program can be easily measured in terms of students served and dollars earned, perhaps the most important aspect is the immeasurable value of the work attitudes and sense of dignity and self-reliance that comes to a needy person who realizes that he is contributing significantly to his own education and his maintenance as a family member.

There were no work-study funds available in 1963. In 1968, a total of 481 students were served; in 1968, a total of 388; and a projected total of 500 for 1977.

f. Research and Training

Funds available under part C, although sporadic, have been used to support a research coordinating unit and to fund a number of research and research-related activities in support of the State's vocational education programs.

The unit has conducted studies in areas such as manpower needs, facility needs, guidance and testing, curriculum, evaluation and data processing, as well as others. In addition, a research library has been established, a computerized vocational education information system has been developed, and thousands of research reports have been disseminated.

The RCU collects, processes, and reports statistical data for State and Federal reports, develops the State plan, and administers all part C and part D proposals and programs.

One of the more successful efforts was the recent development of a career guide of private and public vocational education offerings in the State. Associated with this project was a separate study of the projected enrollments and outputs from the public and private sectors.

The guide has been in heavy demand throughout the State, especially by guidance counselors.

STATE ADVISORY COUNCIL

In the 3 years in which we have received the State advisory council's evaluations we have been able to institute the recommended changes prior to the issuance of the evaluation. This is particularly true of their comments.

However, in the last year (1972) we were excluded from their meetings and were not aware of what the evaluation would contain. Consequently, we were unable to implement any worthwhile recommendations during the year.

SUMMARY AND RECOMMENDATIONS

Over the past 10 years enrollments in vocational education in Connecticut, including consumer and homemaking and other special programs, have increased more than fivefold. The greatest growth was on the secondary level with an enrollment in 1972 9 times larger than that of 1963. Postsecondary enrollment grew by 250 percent while adult enrollments increased by approximately 25 percent. These latter programs, financed chiefly through State funds, have been affected by a State austerity program resulting in cutbacks where normal growth might have occurred.

Connecticut, along with other States, was forced, through Federal funding and priority direction, to give serious concerted attention to such target populations as the handicapped and, disadvantaged. Programs for these people would never have developed as quickly without Federal leadership. Sporadically, USOE leadership has provided impetus for program development in these and other areas. Such leadership should be continued and expanded.

The Tydings amendment has done much to enable States to plan and operate programs on a continuing basis. Similar arrangements, or even better, some form of earlier or advance appropriation would provide an opportunity for better, realistic planning on a State and local basis.

DISTRICT OF COLUMBIA

Director—Paul E. Cawein

INTRODUCTION

Because of the rather unique governmental structure within the District of Columbia, the District of Columbia Board of Education performs the combined functons of a State and a local unit. Therefore, for the purposes of this report, the terms "State" and "local" are considered to be synonymous.

The Board of Education has approved and is proceeding with the implementation of comprehensive restructuring of the educational program, K through 12, which envisions a sequential career development program that is designed to prepare all public school students for making wise career decisions and will provide the full range of educational programs and guidance and counseling services necessary to facilitate their successful entry into the world of work, either directly from high school or following continued education.

Vocational education programs will be an integral and essential component of the career development program. The broadened scope and direction provided by the Vocational Education Acts of 1963 and the Vocational Amendments of 1968 are in general harmony with the rationale underlying the objectives of the comprehensive program. Its success will be largely dependent upon the continuation, and indeed increase, of Federal funding in support of vocational education.

This report, in effect, describes the progress made toward the phasing of the traditional programs of specialized vocational education into the broadened concept and ultimate goal projections. Unfortunately, because statistics for reimbursable programs with vocational objectives are not available, the report does not give a complete picture of all of the vocationally oriented activities and programs which have been carried on in the public schools of the District of Columbia for the specified years.

Total enrollments, all programs:

1963	5,741
1968	10,642
1972	10,813
1977 (projection)	41,621

PUBLIC LAW 90-576—PART B—STATE VOCATIONAL PROGRAMS

a. Job Training Enrollments, 1963

O.E. code	Training area	High school	Post high school	Adult
		1963		
01.	Agriculture	0	0	0
04.	Distributive education	82	0	844
07.	Health occupations	0	485	0
09.	Home economics	1,745	0	2,230
09.02	Home economics (gainful)	0	0	0
14.	Office occupations	0	0	0
16.	Technical education	173	0	41
17.	Trade and Industrial occupations	1,891	0	1,033
	Total	3,891	485	4,148
		1968		
01.	Agriculture	60	0	93
04.	Distributive education [1]	0	0	555
07.	Health occupations	49	332	300
09.	Home economics	1,438	0	1,433
09.02	Home economics (gainful)	180	0	17
14.	Office occupations	705	233	160
16.	Technical education	0	14	25
17.	Trade and industrial occupations	1,146	508	1,576
	Total	3,578	1,087	4,159
		1972		
01.	Agriculture	76	0	102
04.	Distributive education [1]	0	0	566
07.	Health occupations	235	271	84
09.	Home economics [2]	0	0	0
09.02	Home economics (gainful)	200	0	109
14.	Office occupations	641	128	73
16.	Technical education	109	0	0
17.	Trade and industrial occupations	1,297	690	492
99.	Special programs (group gudiance prevocational)	1,742	564	184
	Total	4,360	1,653	1,610

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[1] Beginning with fiscal 1968, distributive education programs, except those at the adult level, were funded under part G—cooperative vocational education programs.

[2] Beginning with fiscal 1972, all home economics programs, except gainful, were funded under part F—consumer and homemaking education.

a. Job Training Enrollments

O.E. code	Training area	High school	Post high school	Adult
		1977 (projected enrollments)		
01.	Agriculture	100	100	50
04.	Distributive education [1]	0	300	600
07.	Health occupations	514	600	100
09.	Home economics [2]	0	0	0
09.02	Home economics (gainful)	435	200	200
14.	Office occupations	2,540	979	350
16.	Technical education	200	140	350
17.	Trade and industrial occupations	4,125	1,150	1,275
99.	Special programs (group guidance/prevocational)	15,000	7,500	1,963
	Total	22,914	10,969	4,888

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[1] Beginning with fiscal 1968, distributive education programs, except those at the adult level, were funded under part G—cooperative vocational education programs.

[2] Beginning with fiscal 1972, all home economics programs, except gainful, were funded under part F—consumer and homemaking education.

b. General Description

The support provided by the vocational education acts has enabled the District of Columbia to continue the traditional emphasis of fulfilling the requirements of the labor market and, at the same time, to increasingly satisfy the needs of students by clustering programs and utilizing the open ended career ladder concept. A comprehensive review of vocational courses of study has been initiated to assure that students at all levels have the opportunity and are motivated to achieve their maximum potential.

High School

During fiscal 1973, various technical and occupational programs of the academic high schools were brought under the central control of the department of career development programs, in addition to its responsibility for the administration of the five area vocational high schools. All technical and occupational programs at the high school level, such as typing and shorthand, now operate under one umbrella, with a commonality of objectives, philosophy, administration, and supervisory control. Major changes in vocational and career-oriented training programs have been initiated to improve and broaden services within available funds. An expanded pattern of training programs, including cooperative programs with business and industry, extended-day programs, and other flexibly scheduled classes to serve students from regular high schools has been developed.

The career counseling and placement program was redeveloped and enlarged to include all public high schools in the District of Columbia. With the cooperation of a special committee of the board of trade, as well as the District of Columbia Manpower Administration, and the urban league, job fairs, job interviews, and group counseling sessions were held for graduates seeking employment.

A new interdisciplinary cooperative education program recruited 500 academic high school 11th grade students to participate in special half day on-the-job training programs in a broad range of occupational areas during their senior year. Twenty teacher-coordinators were recruited and trained to coordinate the student training experiences, and to plan seminars and other supportive services.

A beginning career center for communication and media is scheduled for opening in September 1973 in a recently available building which has been completely remodeled and equipped to accommodate a variety of ongoing, budgeted programs in a fashion which will radically expand both the number of students to be served and the quality of the services.

The employment needs and opportunities in the Washington metropolitan area for graduates of business and office occupations programs and programs in the field of health services continues to increase beyond the capacity of our schools to train workers. The high percentage (98 percent) of placement of vocational high school graduates in these fields has been an encouragement to expand these programs to the extent of available funds. Much more could be done if additional funding was provided.

Close liaison with community businesses, industrial service organizations and associations, and organized labor has resulted in the establishment of productive cooperative relationships with Trade and industrial organizations such as Chesapeake & Potomac Telephone Co., Shell Oil Co., General Motors Corp., and the local carpenters' union. Approximately 100 students, participated in cooperative programs sponsored by these organizations, with full-time employment assured for successful graduates.

The school system is embarking on a major planning study financed by District capital budget funds to develop detailed plans for program and facility needs for implementation of radically expanded career development, including specialized vocational-technical programs for all high school students. This study will include new facilities, remodeling of present vocational high schools, year-round school year, and their related areas.

e. Postsecondary Courses

Postsecondary courses, supported by Federal funding are offered at three area vocational schools. In fiscal 1972, the total postsecondary enrollment was distributed as follows:

07 Health occupations	271
14 Office occupations	128
17 Trade and industrial occupations	690
Total	1,089

The above enrollment may be compared with 485 enrolled in 1963.

Postsecondary programs are now offered in the Armstrong Adult Education Center (operating from 8:30 a.m. through 10 p.m. each week day), two area vocational schools, and in six local hospitals.

Pilot programs training for dental assistants, dental laboratory assistants, and surgical technicians have proven their value and have become established as regularly offered courses in the health occupations, in addition to the existing programs for practical nursing, hospital food service supervision and in-service training for up-grading of licensed practical nurse personnel.

Ninety-eight percent of the students completing postsecondary programs were placed full time in the field trained or a related field.

d. Disadvantaged Students

ENROLLMENTS*

	1963	1968	1972	1977 (projected)
01. Agriculture	0	6	25	45
04. Distributive Education	0	7	338	480
07. Health occupations	0	0	280	410
09. Home economics	0	614	1,957	2,500
09.02 Home economics (gainful)	0	34	0	75
14. Office occupations	0	30	295	480
16. Technical Occupations	0	0	95	160
17. Trade and industrial occupations	0	132	634	850
Total	0	832	3,624	5,000

During fiscal 1972, 4,023 students enrolled in vocational education programs were identified as disadvantaged. This represents approximately 34 percent of all students enrolled in vocational education programs in the District of Columbia. One of the major goals for the past year was, to provide career education programs to meet the needs of disadvantaged youth and adults. It can be shown that many secondary enrollees are disadvantaged youth; therefore, more disadvantaged youth are actually served each year than is reflected in the statistical reports. Enrollment figures reflect those persons served through funds directly associated with categorical identifications.

All vocational high school courses were supported with compensatory programs, geared particularly to remediation in basic skills in reading and mathematics.

Enrollment statistics for 1963, 1968, and 1972 indicate the recognition of an almost overwhelming need in the past for programs for disadvantaged students and a projection of 5,000 in 1977, is a further step in this direction. In the District of Columbia with its predominance of minority group students, remediation programs represent one of the most essential services offered by the public schools to its vocational students.

e. Handicapped Students

ENROLLMENTS

		1963	1968	1972	1977 (projected)
01.	Agriculture	0	0	0	5
04.	Distributive Education	0	0	20	70
07.	Health Occupations	0	0	0	0
09.	Home Economics (consumer and homemaking)	0	0	24	80
09.02	Home economics (gainful)	0	0	0	10
14.	Office Occupations	0	0	61	250
16.	Technical Occupations	0	0	0	0
17.	Trade and industrial occupations	0	0	27	10
99.	Special programs	0	0	12	35
	Total	0	0	144	550

In the years prior to 1972, for which enrollments were requested, statistics were compiled under the heading of "Persons With Special Needs" in order to conform to the reporting forms developed by the U.S. Office of Education. In those years, "Persons With Special Needs" included both the disadvantaged and the physically handicapped. Therefore, enrollments for both categories are grouped together in 1968, under "Disadvantaged Students," since no separate breakdowns of disadvantaged and physically handicapped enrollments are available.

The Department of Career Development Programs, which administers Federal vocational funds for programs for handicapped students, cooperated with the Department of Special Education of the District of Columbia Public Schools and the Department of Vocational Rehabilitation of the District of Columbia of Human Resources for the supervision and provision of vocational programs for the handicapped.

Vocational programs for the handicapped in the special education schools, as well as two pilot programs, one at the former District of Columbia Children's Center and the extended day program for the blind in consumer and homemaking education at the Dunbar Senior High School, were continued. Money was provided for the transportation of hearing impaired students from a regular school to a vocational high school on a half day basis. The hearing therapist provided support in the vocational high school.

A summer program in career development in the arts was offered at the Sharpe Health School to physically handicapped students, integrated with the nonphysically handicapped. An important element of the class was to provide the handicapped with new competition and the opportunity to experience success in comparing their work with the nonhandicapped.

A recently appointed supervisor of career development programs for the handicapped is now giving full-time attention to the development of programs in this area.

f. Adults

A breakdown of adult (part B) enrollments for 1963, by preparatory training programs and supplementary programs cannot be provided since at that time only total enrollments in adult programs were compiled. In 1968, adult enrollments by preparatory—unemployed and in need of job training—and supplementary—those who are presently employed and in need of job retraining—was as follows:

		Preparatory	Supplementary	Preparatory MDTA programs
01.	Agriculture	93	0	0
04.	Distributive Education	337	218	0
07.	Health Occupations	128	172	0
09.02	Home economics (gainful)	17	0	0
14.	Office Occupations	125	35	361
16.	Technical	0	25	0
17.	Trade and industrial occupations	474	1,102	528
	Total	1,174	1,522	889

In 1972, the enrollments were:

		Preparatory	Supplementary	Preparatory MDTA programs
01.	Agriculture	76	26	
04.	Distributive Education	235	331	
07.	Health Occupations	79	5	
09.02	Home economics (gainful)	109	0	
14.	Office occupations	73	0	398
16.	Technical	0	0	0
17.	Trade and industrial occupations	356	136	686
	Total	928	498	1,084

FISCAL 1977 PROJECTIONS ARE

		Preparatory	Supplementary	Preparatory [1] MDTA programs
01.	Agriculture	230	80	0
04.	Distributive Education	400	431	0
07.	Health occupations	350	50	0
09.02	Home economics (gainful)	314	50	0
14.	Office occupations	330	50	1,500
16.	Technical	150	50	0
17.	Trade and industrial occupations	1,200	890	1,000
	Total	2,974	1,601	2,500

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[1] Manpower development and training programs are instituted upon the request of the District of Columbia Manpower Administration in relation to manpower needs. The projection is based upon trends which are expected to be in effect in fiscal 1977.

g. Financing

i. Because of the city/State status of the District of Columbia and because of the easy accessibility of all vocational programs to all residents of the District of Columbia, the U.S. Commissioner of Education, through his approval of the annual State plan, has acknowledged that the District of Columbia is exempted from a statement of methods for the distribution of funds to local educational agencies, required of the States.

Allocation of funds are made on the basis of information from the schools relative to their needs and a periodic evaluation of vocational education programs, available studies and labor market information in light of current and projected manpower needs; the needs, interests and abilities of the persons to be served; and the physical facilities within a school plant. Allocations for all programs and services are made in accordance with the various minimum percentage limitations specified by the Act.

ii. Breakdown of Federal and District funds (all programs):

Years	Federal	District of Columbia	Total
1963	$131, 852	$580, 539	$712, 391
1968	791, 967	1, 585, 357	2, 377, 324
1972	846, 814	2, 363, 284	3, 210, 098
1977 (projected)	4, 152, 889	6, 073, 780	10, 226, 669

Part B (section 102a) expenditures—1972

Federal	$470, 323
District of Columbia	2, 080, 021
Total	2, 550, 344

h. Construction and Equipment

Years	Federal	District of Columbia
1963–68	$1, 558, 356	$773, 983
1969–72	697, 301	360, 113
1973–77 (projected)	3, 187, 800	3, 167, 500

Federal funds for vocational construction and equipment are available to the District of Columbia under the Federal Vocational Act only.

Construction and equipment funds have been used to provide for the construction of additions to three vocational high schools, to replace obsolete or wornout equipment of ongoing programs, and to equip new programs. The large increase in funding projected for the period 1973–77 will provide for the major remodeling of the five existing vocational high schools which will become career development centers each housing clusters of closely related occupations. The training in these centers will be made available to all high school students and adults in the District of Columbia. An increased level of Federal funding is essential to the implementation of this plan.

a. Exemplary Programs and Projects

Programs served under this section enrolled the following number of students: 1968—none; 1972—526; 1977—2,800.

The creation of a sequential pattern of career development to influence the educational program of all students, K-12, with close ties to the world of work and to the institutions associated with continuing education has been a major objective. Initial steps have been taken at the elementary and junior high levels consisting of the establishment of pilot programs within selected schools, focusing on the introductory and exploratory phases of career development. At the high school level, initial steps have been taken to revise and expand programs in the existing vocational high schools.

At the elementary level, pilot programs were established to provide pupils with an orientation to careers through the teaching of:

1. Basic economic concepts,
2. Creative manipulative skills—including the use of simple tools, and
3. The role and development of technology.

At the junior high level, pilot programs were established to provide students with a career survey, based upon social and economic realities.

The high school program provides familiarity with occupations in some depth, and, particularly, provided specialized training and work experiences.

In 1972, $533,000 was allocated for the purpose of planning career development facilities at the high school level. In addition, Federal funds totalling $600,000 over a 3-year period were granted to support implementation of the program at all grade levels.

b. Residential Vocational Education

The long-range plan for vocational education in the District of Columbia does not anticipate the establishment of residential schools under part E of the act.

c. Consumer and Homemaking and Occupational Home Economics

The consumer and homemaking education design has introduced the career education concept from kindergarten through high schools which complements the total planned career development program of the District of Columbia public schools, and which will allow for a smooth transition into the career development centers.

Increased assistance has been provided the disadvantaged with auto-tutorial systems and materials. Handicapped persons are being scheduled into regular classrooms with other students. It has been shown that they are better prepared for employment when trained with nonhandicapped students.

Consumer and homemaking programs have been established at the Sharpe Health School for severely handicapped students, at the Dunbar Community School for the visually handicapped and at the Phyllis Wheatley YWCA for mentally handicapped students. Programs for pregnant girls are conducted at two locations. Emphasis upon preparation of young people for the dual role of homemaker and wage earner will continue. Progress has been satisfactory to the present but much more needs to be done. Adult programs will be expanded in the economically depressed areas of the community, along with additional programs using part B funds for occupational preparation.

		1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
	1962-63 (fiscal year 1963) vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	1,466	1,537	94	1,055	885	24	200	55	0
Adult	1,314	2,432	17	1,844	1,072	0	109	50	0
Total	2,780	3,969	111	2,899	1,957	24	309	105	0
1977 (PROJECTED)									
Secondary				6,000	1,200	100	500	200	50
Adult				6,304	1,500	0	250	100	25
Total				12,304	2,700	100	750	300	75

d. Cooperative Vocational Education

Enrollments in part G programs

1963	0
1968	215
1972	394
1977 (projected)	900

In addition to the 394 students enrolled in part G cooperative programs in 1972, 138 students participated in part B programs, and 328 in reimbursable programs not supported by Federal funds, for a total of 860 enrolled in all cooperative education efforts.

Because of the cooperative employment opportunities in the District of Columbia afforded by the presence of the Federal Government, in addition to the needs of the District Government and local businesses, the area of office occupations consistently maintains a high enrollment in cooperative programs. Graduate placement in the field for which trained approached 100 percent in all office occupations cooperative programs.

An interdisciplinary cooperative education program was instituted in fiscal 1973 to provide a wide pattern of cooperative work-study education for students enrolled in the academic high schools, who are seniors and do not plan to go to college. The program provided a half-day on-the-job training, with students completing academic requirements for graduation during the remaining half-day at their regular high school. This program has greatly expanded the number of graduating seniors who have job entry level skills and placement services.

e. Work-study programs

Enrollments in vocational work-study programs

1963	0
1968	131
1972	145
1977 (projected)	200

The specific aim of the work-study program has been to provide the means for a measure of economic independence to students enrolled in vocational programs so that they may be encouraged to remain in school through graduation; and to strengthen the kinds of work habits which will be an asset to students after they leave the comparatively sheltered life atmosphere of the school-supervised jobs. In addition to providing monetary assistance, the program has served to improve the attitudes of students toward their school and has fostered a sense of personal worth and accomplishment.

f. Research and Training

In the District of Columbia, the function of the research coordinating unit is assumed by the public schools' department of planning, evaluation, and research. The department of career development programs has an educational research assistant who performs in-house research and planning function and maintains liaison with research coordination unit personnel in other States.

The Metropolitan Educational Council for Staff Development has developed and is currently testing the impact of career awareness and achievement motivation at the junior high school level. This project is designed to assist junior high school career counselors and teachers in the development of models for utilization of career awareness simulations and achievement motivation exercises. It will measure change in students exposed to the models, as well as measure the degree to which the models are incorporated in the regular school programs. This project will be completed in June 1973.

A 5-year followup study of vocational and selected academic graduates is proposed for late 1973. This study will assess the training needs of vocational and terminal academic students based on graduates' observations about the world of work; it will also provide an indication of career pattern, and elicit employers' evaluation of graduates' job performance and the adequacy of their training.

Additional research and development funds will be utilized to develop a training model for teachers in career development centers. This model will be implemented on a pilot basis in the first of a series of centers, scheduled to open in September 1973. The conceptual design of the center approach will provide for a broad range of training needs in the career clusters developed by the U.S. Office of Education.

STATE ADVISORY COUNCIL

Among the many contributions the State advisory council has made to vocational education in the District of Columbia in the last 5 years, perhaps the most important may be summarized as:

a. Presenting its best judgments to the board of education (State board) on the value and effectiveness of vocational programs in the District of Columbia.

b. Expressing to the public school administration and the State board the concerns of the total community in the development of vocational education programs.

c. Acting as a valuable medium of communication with the community in publicizing and promoting vocational education.

The District of Columbia Advisory Council on Vocational Education to the Board of Education has received high praise for the excellence of its annual reports to the U.S. Commissioner of Education and the National Advisory Council. These reports include recommendations of the advisory council for the current year, the response of the school administration to these recommendations, and their current status. The annual report includes with a comprehensive evaluation of the total program of vocational education.

The members of the council and its executive director are active participants in national conferences and conventions related to vocational education.

A response is made by the school administration to each of the specific recommendations of the council. In most cases, the recommendations can be implemented or plans developed for their eventual accomplishment. In those instances where a lack of funding presents an obstacle, the council has acted aggressively to lend its support by appearing before those governmental bodies, local and national, which have an influence on the funding of vocational education programs in the District of Columbia.

Good rapport exists between the advisory council and the administrators of the vocational program. The narrow confines of the District of Columbia make it possible for the council members to be thoroughly knowledgeable concerning on-going programs and the degree to which local needs are met. Because of this, the council has given valuable assistance in the development of annual and long-range plans as they appear in the State plan for the District of Columbia.

Council members themselves have participated in numerous functions such as high school graduations, community banquets and many council members are active in the community and professional organizations, such as the Advisory Committee on the Bachelor of Science in technology program at the Washington Technical Institute, Widening Horizons Board, Inter-Met, Mayor's Commission for Food, Nutrition and Health, Mayor's Task Force on Construction Problems, National Reading Council, American Society for Public Administrators, American Society on Training and Development, and the American Vocational Association.

SUMMARY AND RECOMMENDATIONS

The gradual growth of vocational education in the District of Columbia over the past 10 years can be clearly ascribed to the growth of Federal funding for vocational education which has played such a critical role in its support.

Spurred on by the Vocational Educational Amendments of 1968, the District of Columbia developed a plan for career development education K–12, which is beginning to accelerate the expansion of enrollment in specialized vocational technical programs, and at the same time to radically expand the range of program offerings to meet the challenge of technological change. A review of the data set forth above, shows a pattern of expansion in enrollment at the secondary level, which began in 1972, and is continuing this current year. If Federal support for vocational education continues, and if increases in funding are actually appropriated to match anything like the promises of the authorization under the 1968 amendments, this growth will accelerate. If not, then the total burden for growth will rest upon our local school board, which does not have sufficient funds to finance this expansion alone.

FLORIDA

State Director—Joseph Mills

INTRODUCTION

Vocational Education in Florida is an interrelated Federal-State-local action program of service to people. Each level of government has a significant role to play. Each must acknowledge that role and maintain a positive position of support because it is through this interrelationship that the vocational-technical education program in Florida has moved ahead.

During the past decade the Florida Legislature has assumed a position of State leadership in vocational education. Local districts have developed an increasing awareness of the values of vocational education. The U.S. Congress has provided assistance which has accelerated progress.

In Florida, the funding support for the operation of vocational education is assumed primarily by the State. Generally, Federal funds are used for the promotion and improvement of programs and not to sustain program operation.

It is within these concepts that this paper reviews highlights of Florida's progress in strengthening and expanding vocational education and projects plans for the future.

In 1963, members of the Florida Legislature became increasingly aware of the needs of vocational education in the State and looked for ways and means to move this important educational program forward. At that time, Florida programs were dependent upon a few vocational schools for postsecondary and adult vocational education which were ordinarly in substandard facilities. High schools offered vocational education at the secondary level with vocational agriculture and vocational home economics being predominant. Of the 28 community colleges, only 2 had vocational education programs of any significant size.

The 1963 Florida Legislature took the following important steps:

1. Authorized district school boards, with the approval of the State board of education, to establish area vocational-technical centers as a part of a district school system.
2. Mandated the State board of education to conduct studies to determine the location of area centers.
3. Included area vocational-technical education centers, along with community colleges and universities, in a bond referendum to generate construction funds.

Florida voters approved the bond referendum in 1963, and in 1965 the legislature authorized $8 million for the construction of area vocational-technical centers and $8 million for vocational education facilities in community colleges. These funds were matched with some $4 million of Federal funds under the Vocational Education Act of 1963 and in this way the State embarked upon the development of a system of area vocational schools to serve its total population.

Concurrent with those developments, Federal funds under the Vocational Education Act of 1963 were also used to:

1. Improve and expand vocational programs in secondary schools;
2. Improve and expand vocational offerings at the postsecondary and adult levels;
3. Initiate programs for disadvantaged and handicapped persons;
4. Organize a research coordinating unit and begin to develop a program of research.

By 1968, the status of the Florida program for area vocational education schools, in brief, was as follows:

1. Twenty-one area vocational-technical centers to be operated by district school boards as separate institutions had been designated by the State Board for Vocational Education;
2. Thirteen community colleges had departments designated as area vocational education facilities;
3. One comprehensive high school had also been designated as an area vocational school.

Through June 30, 1968, $21,608,188 in State bond amendment funds and $15,879,543 in Federal funds were used for construction of these centers.

By June 30, 1968, 35 area schools had been designated, and most were in operation, having completed one or more phases of development. For the first time Florida's population, including students, parents, businessmen, legislators and educators, had the opportunity to view vocational education facilities of high quality in settings designed to lend prestige to the program.

From 1963 to 1968 enrollments at all levels for all target groups increased as follows:

Level or target group	Enrollment	
	1963	1968
Secondary	74,491	139,965
Postsecondary	7,213	51,460
Adult	70,580	133,651
Disadvantaged and handicapped	(1)	4,536
Total	152,284	329,612

[1] Not available.

The 1968 amendments to the Vocational Education Act of 1963 have exerted significant influence upon the Florida program. Illustrative of changes which have taken place from 1968 through 1972 are:

1. Vocational programs, activities and services, consistent with the categories and goals established in the amendments, have accelerated;
2. Innovative programs have expanded;
3. Exemplary projects have been encouraged and funded;

4. Career education, in keeping with the national goal, has been introduced;

5. The need for facilities to house programs, activities and services has been dramatized;

6. A management information system is being developed and implemented.

Concurrently, by a series of actions, the Florida Legislature established a foundation for progress.

1. Through the Government Reorganization Act of 1969, the division of vocational education was named as one of four operating divisions of the department of education. Separate division status was given vocational education visibility as a part of the total educational effort and provides representation at the policy making levels along with the division of elementary and secondary education, the division of community colleges and the division of universities.

2. The legislature created a special vocational education subcommittee in June 1969, upon adjournment of the 1969 session, to investigate vocational education in Florida in depth and at all levels. A report dated March 2, 1970, presented the committee's major findings and 20 recommendations. Some eight bills were passed in the 1970 session which have become known as the Vocational Education Package of 1970. These bills paved the way for a comprehensive vocational education program for career development.

3. Florida's comprehensive vocational education program for career development has been a forerunner for career education in this State. Its major components include:

(*a*) Introduction to the World of Work (Grades 1–6);

(*b*) Occupational Exploration (Grades 7–9);

(*c*) Job Preparatory Training, Secondary (Grades 7–12), Postsecondary, Adult;

(*d*) Supplemental Training.

4. The legislature not only broadened the vocational education program, but provided support elements as well.

(*a*) Each school district and each community college with a department approved as an area vocational education school is required to employ a certificated local director of vocational education.

(*b*) Each school district is mandated to provide year-round offerings in not less than five vocational areas for young people under 19 years of age if they are in school or not.

(*c*) Required school districts to develop plans for adequate guidance services. To expand guidance and counselling services, authorized the employment of suitable individuals to provide counselling services regardless of their educational background.

(*d*) Authorized $6 million for expenditure during 1970–71 to replace obsolete and worn out equipment in vocational education shops and laboratories.

(*e*) Established the vocational improvement fund by which the department of education includes in its legislative budget requests proposals for the improvement of vocational education within the State.

(*f*) Established within the foundation programs. State financial support for vocational education courses in line with the cost of conducting such courses.

5. Authorized the commissioner of education to develop strategies to bring about constructive education change and placed the responsibility for program operation upon local districts with accountability.

6. Mandated that the State board of education designate high schools as area vocational education schools and give priority to secondary school facilities in the further allocation of Federal funds for construction.

In May, 1972, the Florida commissioner of education, through a statewide conference, introduced to Florida educators and others the concept of career education.

School districts and community college districts have shown much interest. Although many districts have some element of a career education program, six school districts have in operation exemplary projects which include elementary and junior high instruction. Three other school districts are planning and have partially implemented comprehensive vocational education programs from grade 1 through postsecondary and adult levels.

During the past decade, Florida has made giant strides forward in vocational education as indicated by the following chart. This progress can be attributed directly to that Federal-State-local relationship which has prevailed.

ENROLLMENTS IN VOCATIONAL EDUCATION (SELECTED YEARS)

Level of target group	1963	1968	1972	Projection 1977
Secondary	74,491	139,965	353,587	422,444
Postsecondary	7,213	51,460	75,193	130,843
Adult	70,580	133,651	177,118	252,658
Disadvantaged or handicapped	(1)	4,536	(2)	(2)
Totals	152,284	329,612	604,898	805,945

[1] Not available.
[2] In above.

As Florida looks toward 1977, continued growth is to be expected. With this growth will be areas of concern including:

1. Adequate and appropriate funding support.
2. Adequate and appropriate lead time opportunities for planning.
3. Proper and accurate data for decisionmaking and management.
4. Appropriate and adequate approaches to identifying improved practices.
5. Appropriate and adequate means and methods to disseminate and diffuse improved practices to the end that they will be accepted.
6. Ways and means to establish accountability for results.
7. Ways and means by which evaluation of results may bring about improved practices in the process.

Vocational education cannot be static. Its success is dependent upon the extent to which decisionmakers at al levels can identify and successfully cope with constructive educational change.

PUBLIC LAW 90–576—PART B—STATE VOCATIONAL EDUCATION PROGRAMS

The Vocational Education Amendments (Public Law 90–576) amended the Vocational Education Act of 1963 (Public Law 88–210) which strengthened and expanded vocational education in Florida. Part B of the amendments provides resources for the States to assist in conducting vocational education programs for persons in communities to insure that education and training programs for persons in communities to insure that education and training programs for careers are available to all individuals who desire and need such training. Part B resources assisted in providing vocational education for high school students, vocational education for persons who have completed or left high school, for adults who have entered the labor market and need training or retraining, and for disadvantaged and handicapped persons. Resources for construction of area vocational education school facilities, for guidance and counselling services, and for numerous ancillary services and activities were also provided. The following subsections are concerned with information relative to activities utilizing part B resources.

Job Training Enrollments

Enrollments by job training area and by high school, post-high school, and adult levels illustrate the growth of vocational education.

Enrolments in vocational education for gainful employment—selected years (enrollments under part G and part F funds excluded).

	1963	1968	1972	Projection 1977
Secondary:				
Agricultural education	9, 351	11, 356	12, 698	19, 623
Business education	(1)	10, 595	30, 953	32, 438
Distributive education	(1)	3, 832	7, 243	10, 148
Health related occupational education	37	519	1, 974	2, 409
Home economics education (occupational prepatory)	(1)	3, 198	10, 293	11, 538
Industrial education	6, 528	13, 854	35, 830	41, 695
Technical education	977	999	1, 767	2, 982
Totals	16, 893	44, 353	100. 758	120, 833
Postsecondary:				
Agricultural education	(1)	545	1, 666	10, 201
Business education	(1)	17, 772	19, 937	25, 922
Distributive education	(1)	9, 929	9, 833	28, 923
Health related occupational education	1, 643	4, 636	10, 351	14, 931
Home economics education (occupational prepatory)	(1)	152	1, 020	5, 715
Industrial education	3, 154	6, 808	8, 862	21, 542
Technical education	2, 416	11, 618	20, 854	21, 154
Totals	7, 213	51, 460	72, 573	128, 388
Adult:				
Agricultural education	1, 638	1, 004	2, 271	14, 311
Business education	(1)	42, 164	42, 791	49, 246
Distributive education	13, 107	22, 847	27, 090	46, 185
Health related occupational education	497	2, 072	6, 511	9, 471
Home economics education (occupational prepatory)	(1)	(1)	10, 038	17, 098
Industrial education	24, 665	30, 002	42, 641	59, 716
Technical education	5, 102	4, 764	5, 426	10, 521
Totals	15, 009	102, 853	136, 768	206, 548
Grand totals	69. 115	198, 666	310, 099	455, 548

[1] Not available.

General Description

Florida has made significant progress in vocational education in the past 10 years. Probably the greatest and most important progress has been in the attitude and support of the people of the State and in their acceptance of vocational education as a major part of the total educational system. Citizens support vocational education because of the general realization that the State's social and economic well-being depends largely upon the quality of their education program. Federal assistance, supplementing State and local resources, has enabled the State to provide area vocational education centers within commuting distance of over 98 percent of the State's population. People in Florida are aware of the value and availability of vocational education to help provide a meaningful life. A greater variety of training programs; many more teachers; many improved and spectacular new physical facilities; equipment; and additional thousands of successful graduates—all are a part of the Florida success story.

The program of vocational-technical education, which envisions service to students at all levels, provides job information and skill development and helps students develop attitudes about personal, psychological, social, and economic significance of work. Extensive guidance and counseling activities assist students in developing self-awareness and in matching their interests and ability to potential careers. The State has developed the comprehensive vocational education program for career development to serve the entire population. The plan for this program is summarized as follows:

1. Instruction in grades 1–6 to familiarize pupils with the world of work.
2. Instruction in grades 7–9 to provide programs of occupational exploratory experiences and programs in job preparatory courses for potential school leavers.
3. Instruction in grades 10–12 to provide job-related instruction, pretechnical vocational education, instruction in vocationally oriented home economics, special courses for disadvantaged and handicapped persons, and assistance in promoting vocational youth organizations.
4. Instruction at the postsecondary level, for persons available for full-time vocational education, in organized programs of instruction leading to a certificate, or an associate degree in a community college, to prepare for gainful employment.
5. Instruction at the adult level to provide training or retraining for employment or vocationally oriented home economics to prepare adults for the role of homemaker or wage earner.

To achieve these long-range goals, plans and funding priorities have been established for Florida. These planning and budgeting objectives are as follows:

1. Enrollment objectives in gainful employment programs

The enrollment objectives needed to meet established long-range goals, by level and type of students, are premised upon the following assumptions:

About 72 percent of all persons work in occupations for which vocational education can provide appropriate entry level training.

Considering the percentage of students who drop out and the percentage of high school graduates who do not immediately continue their formal education upon graduation, at least 57 percent of the high school students should receive 2 years of direct job-related instruction while in high school.

Since approximately 10 percent of the students entering the 7th grade will drop out before entering the 10th grade, they should receive 2 years of job training while in grades 7–9. This would equal at least 7 percent of total enrollments in grades 7–9 each year.

To provide 2 years of job preparatory training for the 57 percent while in high school would require that a minimum of 30 percent of the students in grades 10–12 also be enrolled in vocational education programs each year.

If vocational education assumes the responsibility for providing training for three-fourths of the remaining 15 percent who need but would not receive job training at the high school level, it would require enrollments at the postsecondary and adult levels equal to at least 5 percent and 7 percent (respectively) of the labor force.

The number of disadvantaged and handicapped students enrolled in vocational education programs should equal about 15.5 percent and 9 percent (respectively) of total vocational enrollments.

2. Manpower needs by vocational service in gainful employment programs

The percentage of the total number of nonprofessional workers to be needed for growth and replacement, by vocational service, is as follows:

Vocational service:	*Percentage*
Agricultural education	11. 1
Agricultural production	(3. 1)
Off-farm	(8. 0)
Business education	21. 3
Distributive education	20. 8
Health occupations education	5. 8
Home economics education (gainful)	7. 7
Industrial education	26. 3
Technical education	7. 0
Total	100. 0

The following are illustrative of gains in the initiation or expansion of courses in new job fields of vocational education in Florida: In agricultural education recent job-training programs added include apiculture; animal medical technology; agricultural chemistry, feeds, supplies, and services; park management; golf course operation, and turf management. Business education was given Federal funding in the 1963 act and enrollments in all the common training areas have burgeoned. Growth in distributive fields has been very helpful to the State because a large segment of the labor force is employed in occupations for which distributive education is available. Hotel-motel managment, restaurant management, merchandising, and real estate are only a few of the programs which have enrolled many persons. Home economics has emphasized training for employment, in addition to consumer and homemaking courses. Included in the former are care and guidance of children; clothing management, production, and services; food management, production and services; and home management among others. New job fields in health-related occupations education, appearing after passage of the amendments, include cardiovascular technology, emergency medical technician, mental health technician, nuclear medical technician and physician's assistant. In industrial education, commercial vehicle driver training, heavy equipment operator, heavy equipment mechanic, vending machine repairman, and marine engine mechanic are among job fields being emphasized. In addition, the State is now making special efforts to offer preapprenticeship programs in the construction trades to help high school students establish close links to apprenticeship programs upon graduation. Technical education has added many new job training programs and expanded old programs. Illustrative of the former are the associate teacher technology program, audiovisual media technology, automotive technology, computer engineering technology, educational technology, environmental marine science, social worker technology, and urban planning technology.

Postsecondary Courses

Students in Florida can select from a wide variety of degree and certificate programs at the postsecondary level. Twenty-five area vocational-technical centers, 13 community colleges with departments that are designated area vocational-technical schools and 9 schools for adults offer associate degree and certificate programs. All community colleges and area vocational-technical education centers offer education at the postsecondary level. The "Florida State Plan for the Administration of Vocational Education under the Vocational Education Amendments of 1968" reports planning for 12 new construction projects to begin in 1973–74. These projects are contingent upon partial funding from Federal sources. Enrollments at the postsecondary level have been as follows, in selected years.

	1963	1968	1972	Projection 1977
Community colleges	(1)	44, 122	62, 244	110, 029
Area vocational-technical education centers	(1)	4, 755	6, 709	11, 940
Other	(1)	2, 583	3, 640	6, 419
Total	7, 213	51, 460	72, 573	128, 388

[1] Not available.

Total enrollments at the postsecondary level have increased from 7,200 in 1963 to 51,400 in 1968 to 72,600 in 1972, and are expected to increase to 128,300 in 1977. Postsecondary vocational education planning has been keyed to the State's civilian labor force and it is expected that by no later than 1980 job preparatory enrollments at the postsecondary level will be, at least, equal to 5 percent of the labor force.

Disadvantaged students

Prior to passage of the vocational education amendments, and the designation of 15 percent of appropriated funds to be used for disadvantaged persons, only meager amounts of Federal and State funds had been available for this target group. In 1963, students enrolled in vocational education were not identified as being disadvantaged, even though a large percentage possessed the characteristics of bona fide disadvantaged persons. Passage of the vocational education amendments provided guidelines for implementing vocational education programs, services, and activities for the disadvantaged population. In 1968, over 4,500 disadvantaged persons were served through special vocational education programs in grades 9–12. This accounted for approximately 1.2 percent of the total enrollments in vocational education programs in the 67 school districts, a substantial increase over the services provided in 1963; however, these figures do not include the disadvantaged persons enrolled in regular programs. Growth in service may be partially measured through enrollments shown below. (Students served under parts F and G of the act are excluded; enrollments for 1968 include handicapped persons this one year.)

Enrollments:	
1963	(1)
1968	4,536
1972	64,255

[1] Not available.

In 1972, 2,079 vocational teachers were employed on full-time basis and 1,065 were employed on part-time basis to administer the occupational programs. Fifty-three full-time teachers and 62 part-time teachers were also employed to provide remedial instruction for disadvantaged persons enrolled in vocational education programs.

Each vocational service enrolled disadvantaged persons in 1972. In agricultural education 5,800 enrollments were recorded in such areas as horticulture (1,100), agricultural productions (2,300), and agricultural mechanics (490). Enrollments in distributive education totaled 6,200 with over 370 enrolled in retailing, 220 in advertising, and 1,330 in merchandising. Over 3,400 enrollments were recorded in health related occupations education and 4,850 were recorded in home economics education for gainful employment. Office education recorded over 13,600 enrollments in such occupational areas as filing, accounting, stenography, typing, and office procedure. Technical education recorded over 1,550 enrollments and 16,000 enrollments were recorded in industrial education. The latter included 1,300 in auto mechanics, 960 in electronic occupations, 300 in air-conditioning, 680 in metalworking occupations, 320 in cosmetology, and 612 in small engine repair. Work experience programs, all offered at the secondary level, have had tremendous growth, and over 11,000 enrollments of disadvantaged persons were recorded in 1972.

In general, increases in programs, services, and activities are the result of the passage of the Federal and State legislation providing for broad vocational offerings in every school district and the earmarking of Federal funds to support vocational education for disadvantaged persons. Categorical funding has been a most significant factor in making vocational education available to the disadvantaged.

Handicapped Students

Participation of handicapped persons in vocational education has increased significantly in Florida as earmarked funds have been made available.

In 1968, three of Florida's 67 school districts reported service provided for 450 handicapped persons in vocational education. In 1972, with earmarked funds available, enrollments of handicapped persons increased to 7,142 persons.

Vocational education programs, services, and activities are now being provided to handicapped persons in 40 school districts at the secondary, postsecondary, and adult levels. Enrollments are reported in the following table. (Students served under parts F and G of the act are excluded; enrollments for 1968 include disadvantaged students this 1 year.)

Enrollments:	
1963	(1)
1968	4,536
1972	7,142
Projection 1977	41,689

[1] Not available.

Each vocational service recorded enrollments of handicapped persons in 1972 including agriculture (990), distributive education (6,240), health related occupations education (445), home economics for gainful employment (1,330), office education (1,100), technical education (1,580), and industrial education (2,570). One hundred forty-five enrollments were recorded in work experience programs.

Illustrative of training programs enrolling handicapped persons are horticulture (560), merchandising (59), nurse's assistant (130), clothing textiles (615), home furnishings, equipment, and services (140), typing (200), electronics technology (30), and auto mechanics (250). Also being provided are supportive programs and services such as work evaluation, prevocational learning laboratories, employment opportunity surveys, transportation, and job placement.

The projected 1977 enrollment of 41,698 persons (from part B funds) is based on continuing, specifically earmarked federal vocational funds for handicapped persons and upon continuous growth of State fund participation.

Adults

It is fact of the present century that no educational program can be designated as final. Employed workers require retraining or supplemental training and this need will continue. Youth and adults who have not found their place in life may need remedial or preparatory vocational education to exploit fully the opportunities in society for a full life. It has been a declaration of policy of the Florida State Board for Vocational Education that education resources be developed to offer every adult full opportunities to insure employment and advancement in jobs. Florida's program for adults includes both supplemental and preparatory training for regular, disadvantaged and handicapped persons. With Florida's population estimated to increase 27.6 percent in 1980 over 1970, a greater number of persons will be included in the labor force. A goal of the state is to provide, no later than 1980, short-time preparatory or supplemental training programs for an enrollment equal to at least seven percent of the labor force. The labor force of the State is expected to increase from 3 million in 1972 to 3,500,000 in 1977.

Enrollments at the adult level have increased from 45,000 in 1963 to 102,850 in 1968 to 136,760 in 1972. Enrollments are expected to total 206,550 in 1977. Enrollments in preparatory and supplemental training programs are as follows. (Enrollments under parts F and G of the act are excluded here.)

Enrollments	1963	1968	1972	Projection 1977
Preparatory	(1)	54, 306	72, 214	109, 057
Supplemental	(1)	48, 547	64, 554	97, 491
Total	45, 000	102, 853	136, 768	206, 548

[1] Not available.

Resources from the Manpower Development Training Act have been utilized in Florida since 1962 for the assistance in training and retraining of unemployed and underemployed adults.

The following chart is a comparison of adult vocational enrollments to MDTA training, in selected years.

	1963	1968	1972	Projection 1977
MDTA	927	2, 877	5, 731	6, 000
Adult vocational	45, 000	102, 853	136, 768	206, 548

The majority of adult preemployment vocational enrollments are reported from programs offered by area centers and community colleges. As can be observed from the above data, MDTA enrollments made up approximately 3 percent of all adult enrollments and are projected to remain the same in 1977.

Financing

The distribution of part B funds among local educational agencies, and other agencies in the State, is based in part upon providing for unmet student needs by level of instruction and by type of student in each district. Unmet student needs are the difference between the number of students needing service (potential for service), and the number of students receiving service (actual service being provided). The potential for service, to meet established State goals, is based upon service to levels of instruction described under "general description" in this manuscript. Included in the goals are regular, disadvantaged and handicapped students. State goals include service to all these target groups.

To determine the proper distribution of funds, goal enrollments are determined, separately, for each district of the State (i.e., the number of persons needing vocational education) and actual enrollments are deducted to determine unmet needs in each district. The latter's percent of total unmet State needs, in each category for aid (secondary, postsecondary, and adult levels divided into regular, disadvantaged, and handicapped students), determines the availability of Federal funds from the base allotment (part B funds). In Florida, 10 percent of part B funds available are held in reserve to provide funding for justifiable projects when funds available to a district for a particular project are inadequate.

After needs of local educational agencies are determined, the latter's requests for Federal funds are considered by State personnel. Funds are finally allocated to local educational agencies and institutions as grants-in-aid on the basis of approved developmental program projects after due consideration of factors such as the following:

1. The urgency of need identified by local educational agencies in terms of service to target groups and instructional levels.
2. The vocational education needs of all persons and age groups in all communities of the State.
3. The results of the evaluation of local vocational education programs and services.
4. The need to extend and improve existing programs.
5. The need to develop new programs of vocational education.
6. Projected business and industrial development.
7. The local educational agency's relative ability to provide resources.
8. The relative cost of programs, services and activities.

Projects developed as above by local educational agencies are submitted by authorized representatives and approved by the State board and commissioner of education upon recommendation of the director, division of vocational, technical, and adult education, in consultation with program administrators and other appropriate specialists functioning as a review panel.

Projects are implemented at the local level under the supervision of the appropriate program administrator(s) and his staff and personnel of other appropriate divisions.

Illustrative of the results of State activities to weigh the relative fiscal abilities and needs of districts and local educational agencies are the following tables. One table reports districts with over 250,000 population, their percent of total State population, and their participation in allocations of Federal, State and local funds. Similarly, another table reports districts of the State with per capita income below $2,000 per year and their relative participation in Federal, State and local funds. The tables show no wide disparity between allocations and the relative percentages of the population.

Districts	Population 1972	Percent population	Federal funds[1] 1971-72	Percent funds	State funds[2] 1971-72	Percent funds
	(Allocation of funds to district's with more than 250,000 population)					
Broward	681,500	9.5	$654,629	8.2	$4,395,334	7.7
Dade	1,340,700	18.5	896,069	11.2	9,475,154	16.6
Duval	546,900	7.6	770,863	9.6	3,672,303	6.5
Hillsborough	508,600	7.1	619,158	7.7	4,395,334	7.7
Orange	390,300	5.4	322,162	4.0	4,178,690	7.3
Palm Beach	375,400	5.2	263,021	3.3	2,183,711	3.8
Pinellas	547,200	7.6	[3] 594,553	7.4	5,113,048	9.0
Totals	4,390,600	60.9	4,120,460	51.4	33,413,574	53.6
Balance of State	2,819,700	39.1	3,970,043	48.6	23,574,114	41.4
Grand totals	7,210,300	100.0	8,027,503	100.0	56,987,688	100.0
	Allocation of funds to districts with less than $2,000 per capita income					
Baker	9,500	.1	33,247	.4	66,455	.1
Clay	34,800	.5	35,493	.4	127,594	.2
Gilchrist	3,700	.1	2,105	.1	79,746	.1
Holmes	10,700	.1	19,377	.2	82,404	.2
Pasco	84,800	1.2	112,856	1.4	721,701	1.3
Union	8,400	.1	4,369	.1	116,296	.2
Wakulla	6,600	.1	46,037	.6	105,663	.2
Totals	158,500	2.2	253,484	3.2	1,299,859	2.3
Balance of State	7,051,800	97.8	7,774,019	96.8	55,687,829	97.7
Grand Totals	7,210,300	100.0	8,027,503	100.0	56,987,688	100.0

[1] Funds from part B of the amendments.

[2] Funds for consumer and homemaking education are included.

[3] Does not include $566,588 for the 1971-72 and 1972-73 funding of statewide management information system and 1972-73 funding of statewide evaluator training program for teachers of the handicapped.

Construction and Equipment

Area vocational-technical education centers are a new type of public educational institution in Florida. They were created by the 1963 session of the Florida Legislature and defined in chapter 230.63, Florida statutes. The Florida higher education bond program was initiated in 1963. The latter, together with Federal funds for school construction from the Vocational Education Act of 1963, provided the funds needed to initiate the development of the new facilities in Florida. The Federal Vocational Education Act of 1963, made provisions for State boards for vocational education to designate certain types of educational institutions, "Area Vocational Education Schools." Such designation commits an institution to provide for all residents in its service area a comprehensive program of vocational education. The program must be designed to prepare persons to enter the labor market, or upgrade, update or retrain employed persons who need training to maintain their jobs or advance in an occupation. Designation as an area school qualifies an institution to receive Federal funds to be matched with State or local funds for the construction of facilities.

Florida now has 56 designated area vocational education schools; including 25 area vocational-technical centers and 17 comprehensive high schools with designated departments all operated by district school boards and 13 community colleges with designated departments operated by district boards of trustees.

It is significant to note that these 56 designated schools are strategically located so that approximately 98 percent of the State's population is within commuting distance.

As construction funds become available from Federal, State and local sources, facilities are provided each area school in phases. Presently, 21 area vocational-technical centers, 13 departments of community colleges and 1 department of a comprehensive high school are operating in permanent type facilities. Four of the last five area vocational-technical centers were authorized by the State Board of Education in fiscal year 1971, and are scheduled to become operational in phase I permanent facilities in 1974. There were 17 departments of comprehensive high schools which were designated by the State Board for Vocational Education in fiscal year 1973, and phase I new construction is scheduled to be completed in fiscal year 1974.

Proceeds from a special authorized State bonding program for higher education and Federal funds are the two main sources of revenue to develop area vocational-technical centers and community colleges. Federal and local funds are the two main sources of revenue to develop departments of comprehensive high schools. From 1965 through 1971, the total dollars available from the above sources for school construction has decreased as is indicated in the table below, while the number of schools in the system increased. However, present projected facility needs at area vocational-technical centers by 1977, will be met if the special bonding authority is extended and the funds accrue at the projected rate of increase.

SUMMARY OF FUNDS BY SOURCE ALLOCATED TO DESIGNATED AREA VOCATIONAL-TECHNICAL CENTERS AND COMPREHENSIVE HIGH SCHOOLS FROM 1965-67 THROUGH 1971-73 AND PROJECTED THROUGH 1975-77

Number of centers	Biennium	Federal	Higher education trust funds (State)	Local	Total
20	1965-67	$4,263,793	$8,000,000		$12,263,793
22[1]	1967-69	3,780,935	5,715,000		9,495,935
26[1]	1969-71	1,653,500	4,500,000		6,153,500
43[2]	1971-73	2,700,000	9,114,000	$1,500,000	13,314,000
56	1973-75	2,000,000	35,092,000	2,000,000	39,092,000
63	1975-77	2,000,000	[3] 15,269,000	2,000,000	19,269,000
			[3] (41,206,000)		
Total		16,398,228	77,690,000	5,500,000	99,588,228

[1] Includes one department of a comprehensive high school designated as an area vocational education school.

[2] Includes 18 departments of comprehensive high schools designated as area vocational education schools.

[3] Higher education trust fund special bonding authority expires June 30, 1975. Dollar amount projected to be available if an extension of the bonding authority is not approved by voters. If bonding authority is extended, the projected amount available is shown in ().

SUMMARY OF FUNDS BY SOURCE ALLOCATED TO DESIGNATED DEPARTMENTS OF COMMUNITY COLLEGES FROM 1965-67 THROUGH 1971-73 AND PROJECTED THROUGH 1975-77

Number of departments	Biennium	Federal	Higher education trust funds (State)	Total
10	1965-67	$1,668,010	$3,934,591	$5,602,601
12	1967-69	2,171,749	2,046,727	4,218,476
13	1969-71	398,000	5,788,296	6,185,296
13	1971-73	550,000	17,088,000	17,638,000
13	1973-77		45,337,000	45,337,000
Total		4,787,759	74,194,614	78,982,373

Instructional Equipment

Vocational-technical education programs offered in school districts and community colleges are supported by a State minimum foundation program. Funds are provided for purposes of instructional personnel salaries, instructional supplies and equipment, capital outlay needs, debt services, support personnel and services.

The State funding formula is based upon the cost per full-time equivalent student enrolled in the program. The amount of State funds received per district is relative to a prescribed local effort.

Federal funds are used to improve and expand instructional programs by providing supplemental financial support to districts and community colleges in addition to State and local funds.

Only incomplete data are available on the amount of State and local funds used for instructional equipment, as indicated in the chart below from 1963 through 1972. In the 1970 session, the Florida Legislature appropriated $6 million for fiscal 1970–71 for unmet needs in vocational shops and laboratories in school districts and community colleges. This was a one-time appropriation.

Summarized below are the data available as to the funds allocated for instructional equipment from 1963 through 1972 and a projection for 1973 through 1977.

SUMMARY OF EXPENDITURES BY SOURCE OF FUNDS FOR VOCATIONAL INSTRUCTIONAL EQUIPMENT, 1963–68—1969–72

	Federal	State	Local [1]	Total
1963				
1964				
1965	$1,604,821			$1,604,821
1966	2,113,782			2,113,782
1967	2,073,165			2,073,165
1968	2,096,426			2,096,426
Subtotal	7,888,194			7,888,194
1969	2,177,085			2,177,085
1970	4,969,276			4,969,276
1971	5,583,461	[2] $6,000,000		11,583,461
1972	6,403,499		1,843,940	8,247,439
Subtotal	19,133,321	6,000,000	1,843,940	26,977,261
Grand total	27,021,515	6,000,000	1,843,940	34,865,455

PROJECTED EXPENDITURES FOR VOCATIONAL INSTRUCTIONAL EQUIPMENT, 1973–77

	Federal	State and local	Total
1973–77	$32,500,000	[3] $8,125,000	$40,625,000

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[1] No local expenditures for equipment reported prior to 1972.

[2] One-time State appropriation to provide for the backlog of unmet needs in vocational shops and laboratories in school districts and community colleges.

[3] This projection includes dollars accruing to school districts and community colleges from the State minimum education program and other local sources.

PUBLIC LAW 90–576—OTHER FEDERAL PROGRAMS

Exemplary Programs and Projects

The Vocational Education Amendments of 1968, mandated the development of exemplary vocational programs to bridge the gap between learning and earning. The staff of the Division of Vocational, Technical and Adult Education, Florida Department of Education, has been involved in coordinating the development and implementation of specially designed programs which will serve urban disadvantaged and handicapped youth.

The Florida exemplary program model implemented in July 1970, was established at the following four demonstration school centers: Booker T. Washington Junior High School, Dade County, Miami; Career Education Center, Duval County, Jacksonville; Beggs Education Center, Escambia County, Pensacola; and George Washington Junior High School, Hillsborough County, Tampa. The four programs were forerunners to career education programs.

In 1968, there were no exemplary programs in operations in Florida.

By 1972, four exemplary programs, in Dade, Duval, Escambia, and Hillsborough Counties, serving 1,500 students, had been established and were continuing to operate. A comprehensive career education program was in operation in Orange County, serving 6,000 students. Broward and Brevard Counties were planning the implementation of comprehensive career education programs.

By 1977, it is projected that all 67 school districts will have career education programs in all schools, serving 100 percent of Florida students.

Major purposes of these exemplary innovative programs are to develop educational and occupational skills, positive social behavioral modes and to improve the ecology of students. Staff personnel of the four programs in operation have developed criteria for identifying students between the ages of 13 and 18 with special learning needs. These selected disadvantaged students are enrolled in the special nongraded instructional programs with parental consent.

Other innovative aspects of exemplary programs are related to the inservice teacher education and vocational counselling components. The inservice teacher education program is designed to develop techniques for working with disadvantaged students by using individualized, prescriptive, self-pacing learning packages. The counselling component is designed to assist in realistic career choice and occupational skill development. Around-the-clock counseling services are provided to help students with urgent problems.

Another component of Florida's exemplary programs is the increased use of community resources and involvement with community activities. Three of the four programs described above are located in designated model cities areas. Cooperative relationships have been established and are being maintained between exemplary programs, community action groups and social services agencies.

The expected outcomes of this innovative approach to service for youth with special needs are: (1) More career-relevant and self-fulfilling educational programs; (2) a decrease in absenteeism and dropout rates; (3) a decrease in conflicts between law enforcement and other social agencies; (4) more positive social behavioral modes; and (5) greater involvement in constructive community activities. Based on evaluation reports, these outcomes are being realized. A bill now before the legislature would provide exemplary centers geographically located to serve all students needing the special services provided by these programs.

Evaluation of the exemplary program model is being conducted by the University of West Florida. Program effectiveness is measured by progress toward achievement of product and process objectives outlined in the innovative program design.

A fifth exemplary program was established at Wymore Vocational School in Orange County, Orlando, in September 1971, and will continue to 1974. The model implemented at this center expanded exemplary program objectives in the four schools noted above to include a comprehensive K-12 vocational program for career development for all students. The Orange County project is not limited to programs for disadvantaged students. At the elementary level, students are oriented to the world of work. At the junior high school level, students explore clusters of occupations. At the senior high school level, students prepare for work, to continue their education or a combination of the two.

The exemplary program in 10 Orange County schools is being developed to provide an articulated program of career education. This program and the Pinellas County career education program established with Commissioner's share of part C funds from the Vocational Education Amendments of 1968 (Public Law 90-576) are forming the nucleus of career education modules developing throughout the State. New career education programs are being planned and implemented in Brevard, Broward, and Leon school districts. Requests from 10 additional districts are being considered.

A bill being considered by the 1973 Florida Legislature would provide special funding to begin career education programs in all school districts.

In 1968, there were no career education programs in Florida.

In 1972, there were four career education programs: one program operating in Orange County was supported with part D funds and served 6,000 students; another program in Pinellas County supported through part C funds was being developed; and two career education programs supported with State funds were being planned in Broward and Brevard Counties.

In 1977, it is expected that all 67 school districts will have career education programs serving all students.

Residential Vocational Education

Current State plans do not anticipate a Residential School program.

Consumer Homemaking and Occupational Home Economics

Consumer and homemaking education programs have been strengthened and expanded in Florida along with the great overall gains in other vocational education programs. Districts, area schools, and other institutions are giving greater consideration to social and cultural conditions and needs through expanded programs in consumer and homemaking education. Activities have included programs to prepare youth and adults for the role of homemaker, or for the role of homemaker and wage earner.

The State plan has enumerated areas of the State designated economically depressed and with high unemployment, including areas of high youth unemployment and school dropouts. The latter areas were designated by the U.S. Secretary of Commerce, the State CAMPS Committee, and the Florida Department of Education. Although all vocational services are concerned with providing for the needs of disadvantaged and handicapped persons, consumer, and homemaking education's 30,000 disadvantaged and handicapped enrollments exceeded all other vocational services in 1972, and were up 60 percent over the 18,750 reported 1 year earlier. The State has allotted to economically depressed areas and to areas with high youth unemployment a minimum of one-third of the Federal funds made available by the Vocational Education Amendments of 1968. Enrollments in consumer and homemaking education have increased substantially under part F of the 1968 amendments, as are detailed later in this manuscript—enrollments include grades 10–12, postsecondary, and adult levels.

Since the passage of the 1968 amendments, the home economics section has provided leadership to develop a long range curriculum program including a variety of instructional materials for teacher and student use. Bulletins produced at the State level include a program planning guide and teacher handbook; five working copy resource guides for the middle and junior high school levels; and five K–12 resource guides in the five subject-matter areas of home economics: (1) Human development, (2) management and family economics, (3) food and nutrition, (4) housing and home furnishing, and (5) textiles and clothing. These materials have been provided to teachers in Florida and are distributed through reciprocity to other States.

In addition to the above, gains in enrollments have been reported in occupational home economics. These enrollments have also had spectacular growth since passage of the amendments of 1968 and are detailed in the table which follows.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)						1976-77 (fiscal year 1977)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics			Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	26, 449	51, 546	3, 198	75, 800	19, 500	1, 020	10, 293	1, 543	104	85, 705	24, 370	5, 075	11, 538	1, 731	115
Post-secondary and adult	25, 571	30, 798	152	42, 950	4, 720	490	11, 058	1, 135	111	48, 565	6, 480	3, 310	22, 813	2, 051	230
Total	52, 020	82, 344	3, 350	118, 750	24, 220	1, 510	21, 351	2, 678	215	134, 270	30, 850	8, 385	34, 351	3, 782	345

NOTES.—

1. Secondary includes grades 10-12 (enrollments in prevocational grades 7-9 are shown separately in the whole report but are not shown here).

2. Regular students are included in totals in 1972 and 1977. Then the totals less the disadvantaged and handicapped enrollments equals the regular enrollments.

3. Postsecondary students are included in adult above.

4. All target groups are included in enrollments 1963, 1968. (No separation reported these years.)

Cooperative Vocational Education

Cooperative vocational education programs have had rapid growth in Florida since passage of the Vocational Education Act of 1963 and the 1968 amendments. Formal education has been combined with meaningful work experiences to enable students to acquire knowledge, skills, and appropriate attitudes for work and for life. Part G has provided "seed" money to assist the State to expand and strengthen cooperative work-study programs which contribute to students' education and employability. Priority for funding programs through local educational agencies has been given to areas that have high rates of school dropouts and youth unemployment. Enrollments in cooperative education program have been as follows (only totals for 1963 and 1968 are shown, before implementation of the 1968 act).

	1963	1968	1972	Projection 1977
Cooperative programs—part G			17,650	17,650
Cooperative programs—part B			14,300	51,474
Totals	2,929	4,924	31,950	69.124

In 1972, each vocational service offered cooperative education programs under provisions of part G of the Vocational Education Amendments of 1968. Illustrative of the latter are programs in agricultural education, which recorded enrollments of 828 in such areas as horticulture (115), and agriculture production (235). There were 5,400 enrollments recorded in distributive education in programs such as general merchandising (3,300), and in hotel and lodging, petroleum products, and personal services. Over 500 enrollments were in health related occupations education, and 515 were reported in occupational home economics. Office education reported 476 enrollments in filing and office machines and 240 enrollments in stenography; 171 enrollments were reported in technical education. Trades and industrial education enrolled 1,432 students in programs such as air conditioning, 107; auto mechanics, 245; masonry, 77; carpentry, 81; and small engine repair, 47. There were 6,166 enrollments recorded in work experience programs under part G of the act. (The above comments regarding enrollments in the vocational services are concerned only with enrollments under Part G except in the table where part B enrollments are simply a matter of record.)

Illustrative of important expansion of cooperative work-study programs under part G of the act are increases in enrollments in the work-experience program using part G funds. In 1963, there were no recorded enrollments. In 1968, there were 1104; in 1972, there were 9,264; and it is projected that the enrollments will reach 19,200 by 1977.

Work-study Programs

The Vocational Education Act of 1963, made provisions for Federal funds to support a work-study program of part-time employment of youth who needed help to resume or continue their vocational training. The Vocational Education Amendments of 1968, strengthened the original act and reemphasized the intent and provisions of the Congress to help needy students. According to conditions established in the act, employment under the programs has been in local educational agencies, or in other public agencies. By 1967, 78 schools in the State were participating in the programs and Federal and local expenditures totaled $279,000 for the fiscal year. There were 4,200 students helped by the program in 1967. Florida has continued to exert leadership to encourage districts to organize needed work-study programs and to enforce regulations concerning the selection of work-study students including the requirement that approved students must be in need of financial help to continue their training. Currently, 35 of Florida's 67 school districts and 7 of the 28 community colleges are participating in vocational work-study.

Work-study funds have been utilized to provide part-time employment during the regular term and full-time summer employment of vocational education students with economic needs.

Employment has been provided in office occupations, building and grounds maintenance, transportation, and teacher aides.

A building trades program in one school district utilized work-study funds to employ students to construct air-conditioned relocatable classrooms as a summer project.

Requests for funds are in excess of supply, and projected enrollment is based upon the current level of thinking.

Students served through the program, through part II of the amendments, have been as follows.

Students served in work-study programs

1963	0
1968	750
1972	2,100
Projection 1977	2,100

Research and Training

Federal legislation to support vocational research has resulted in advances in education throughout Florida. The first, and probably most important change, has been establishment of the Bureau of Research and Evaluation as an integral part of the Vocational Division. Through the bureau, the division initiates, encourages, and coordinates research; aids in development of innovative education programs; evaluates programs; and disseminates studies needed to improve vocational education in the State. The impact of research and related activities in expanding and improving vocational programs is continuing to have a significant influence on the change process in the educational system of Florida.

A changing, highly technical society produces many problems in planning, implementing and evaluating vocational programs to prepare persons for work. Problems must be dealt with in a logical manner if the programs are to meet the needs of labor markets and individual students.

Availability of research personnel at the division level to identify problem areas and bring research to bear on problems has made it possible to produce new knowledge and identify formerly unknown facts to maintain and expand high quality programs.

Recent examples of basic research projects or studies funded to provide information about people are:

Communication problems of industrial education teachers in laboratory settings.

The suitability of the college level examination program (CLEP) for admitting vocational education teachers to graduate schools of education in the State universities in Florida.

Conclusions derived from projects such as the above provide valuable data and other pertinent information to continue and expand programs of vocational education in the area of teacher preparation.

Availability of research and development personnel in the division has made it possible for basic research findings to be applied in developmental projects.

Examples of projects utilizing findings of research conducted throughout the Nation include:

An exemplary model for a total ecological approach to nongraded vocational programs in four school centers. (Dade, Duval, Escambia, and Hillsborough Counties.)

Individualized manpower training for disadvantaged adult students.

Development of a resource guide for elementary guidance counselors in career education programs.

Development of a resource guide for post-secondary student personnel services.

Comprehensive programs of vocational education that begin in kindergarten and extend through post-secondary schools have been mandated by the State legislature. To implement the legislative intent, it has been necessary to support projects designed to develop, field test, and disseminate program information: At the elementary level, to familiarize students with occupations in society; at the junior high school level, to provide opportunities to explore a wide variety of occupational clusters; at the senior high and postsecondary levels, to prepare persons to enter and progress in the world-of-work. During the development phase of these studies, conclusions derived from research projects have been broadly explored and synthesized. Promising results have been included in exemplary and innovative programs. Achievement in this aspect of the vocational education effort is in large part dependent upon continued Federal support for supplementing developmental projects such as the following:

FAIS: The Fusion of Applied and Intellectual Skills.
LOOM: Learner Oriented Occupational Materials.
VIEW: Vital Information for Education and Work.
Broward County career education program.
Brevard County career education program.
Orange County career education program.
Pinellas County career education program.
Leon County career education program.
Career Education Curriculum Laboratory.

Evaluation, assessment, and accountability are terms commonly used by educators in Florida when writing and talking about vocational programs, activities, and services. Evaluation personnel in the Bureau of Research and Evaluation have contributed to the development of a State assessment program designed to evaluate the input, process, and product of vocational education. Examples of evaluation projects directly related to these components are:

A cost/effectiveness study of area vocational programs and identification of cost factors of vocational programs in secondary schools.

Evaluation of exemplary vocational education in Dade, Duval, Escambia and Hillsborough Counties.

Statewide followup and placement study.

Development of criterion referenced instruments to assess the effectiveness of performance objectives in employability skills, ornamental horticulture, typewriting communication skills, auto mechanics.

The Bureau of Research and Evaluation has been instrumental in establishing a Department of Education Dissemination Center (FERIC) which will identify, collect, screen, abstract, store, retrieve, package and distribute information of a research nature to persons at all instructional levels. Satellite FERIC centers in 66 locations throughout the State have been established to distribute relevant research studies. More than 150,000 pieces of research and related information are on file in the central office located in the Department of Education. Computer searches have greatly improved the location and identification of appropriate materials. As research and evaluation results are diffused and applied in a practical setting the result will be improved programs of vocational education in Florida.

One example of an important research project being developed with the U.S. Commissioner of Education's share of part C funds is "A Comprehensive Vocational Education Program for Career Development in Grades K–14 for Pinellas School District." The purpose of this project is to develop, implement and evaluate a K–14 comprehensive educational program focused on career opportunities and requirements for job entrance and advancement. Two pilot networks involving a total of 10 schools will form the model program. Career development experiences will serve as the vehicle for teaching basic academic skills to youth. Students in grades 1–6 will become familiar with careers; in grades 7–9, they will explore a wide variety of occupational programs; and in grades 10–12, they will acquire job entry skills and make plans for continued education or entry into the world of work. Specialized job skills development programs will be available in grades 13 and 14. The career education theme will serve as a common thread to unify the educational efforts at all levels. Criteria for the selection of activities to promote career development will be based upon student's needs, abilities, interests, and environmental constraints: principles of the psychology of learning, and human growth and development. Implementation of the program will improve vocational education in that more students will explore occupations, and more students will develop positive attitudes toward the contribution of work to society. There will be more vocational programs available resulting in an increase in the number of students making occupational choices earlier. Program components will include occupational orientation; job clusters; job skill courses; and occupational guidance, counseling, cooperative work experience and placement. New and innovative teaching techniques will be used. Increased guidance and counseling services will decrease the number of students leaving school before graduation, and make possible an increase in the number of students placed in a job, or enrolled in further educational programs. Data will be collected to determine achievement of product and process objectives, and cost transportability of the model.

STATE ADVISORY COUNCIL

The council has made its most significant contribution to vocational education in Florida by being an advocate for making quality vocational education available to all persons that need and want it, which is realistic in light of the needs of business and industry. In fulfilling this advocate role the council has supported, endorsed, and worked for adequate funding and enabling legislation necessary for improving and expanding vocational education programs.

Additional significant contributions of the council have been its lay evaluation activities and reports, serving as a lay advisory group that represents public concerns about vocational education and providing advice and consultative services to staff persons developing, revising and updating the State plan for vocational education. These contributions have been accomplished by utilizing contracted evaluation studies, analyzing information provided by the Vocational Division, council work committees, public hearings and council meetings.

The council has prepared an annual evaluation report the past 3 years which contained numerous recommendations. In response to the fiscal year 1971 and 1972 report, the State director prepared and presented to the council a summary of activities designed to achieve recommendations of the State Advisory Council.

Listed below are examples of the most significant contributions of the State Advisory Council in the form of recommendations with corresponding activities to achieve the recommendations.

1. That cost-benefit analysis of additional vocational-technical programs be conducted on a sample of programs in secondary schools, area vocational-technical schools and community colleges. The methodology utilized by the study referred to above could be used or modified for conducting cost-benefit analyses.

Activities Designed to Achieve the Recommendation.—A proposal to conduct, on a sample basis, cost-benefit analyses of vocational courses is being developed. The proposal will utilize formulas, guidelines and instruments prepared for conducting studies reported in the annual report of the State Advisory Council on auto mechanics, cosmetology, practical nursing, and air conditioning.

2. That part of the "Benefit Cost Comparison of Vocational Education Programs" study that is related to student cost-benefit ratios

be summarized and provided guidance counselors and local vocational educators. Summaries of studies of this nature could be a valuable source of information for students to utilize in planning their career objectives.

Activities Designed to Achieve the Recommendation.—Arrangements are being made to use findings of cost-benefit studies in a brochure for wide distribution to students, parents, businessmen, counselors and other interested persons.

3. That a study be made to determine the vocational-technical education needs of handicapped persons in counties that do not have programs and/or County Coordinating Councils, and that appropriate State and area consultants provide appropriate leadership to assist counties in determining needs, identifying resources, and planning comprehensive programs of vocational-technical education for the handicapped.

Activities Designed to Achieve the Recommendation.—Education consultants and other staff will provide assistance to educators in identifying needs and providing programs to meet those needs. Forty districts now have programs to serve handicapped persons. According to projected plans, 45 districts will have programs during the 1973–74 school year.

4. That job opportunity surveys be conducted on a local level and updated annually. The handicapped are generally stabilized geographically and in most cases should be trained for local job opportunities.

Activities Designed to Achieve the Recommendation.—Federal Vocational education funds have been provided to support surveys of employment opportunities for the handicapped in several school districts: namely, Lee, Pasco, Sarasota Counties.

5. That the development of work-evaluation centers and training of specialized vocational education personnel for teaching the handicapped—such as teacher aides, work evaluators, occupational specialists—be continued.

Activities Designed to Achieve the Recommendation.—Three work evaluation units were funded for Sarasota, Hillsborough, and Pinellas school districts as well as nine work evaluation centers within the Division of Corrections and four within the Division of Youth Services. Provisions were made through the University of South Florida to train persons as work evaluators in school districts, the Division of Youth Services, the Division of Corrections, and other public or private nonprofit institutions having responsibility for the handicapped.

6. That State level leadership be exerted through the State coordinating council for education of the handicapped, or other appropriate channel(s), to develop ways to provide vocational and technical education for a larger percentage of the handicapped who are emotionally disturbed and socially maladjusted.

Activities designed to achieve the recommendation.—The Beggs Education Center in Pensacola is an example of organizing many agencies to cope effectively with the emotionally disturbed and socially maladjusted. The approach uses a combination of fused academic and vocational disciplines. Agencies such as the Vocational

Education Division, Special Education, Vocational Rehabilitation, Guidance Services, the Division of Youth Services, and other organizations cooperate to utilize expertise and resources directed especially to serving the special needs of students. Exemplary programs of a similar nature are located in Duval, Hillsborough, and Dade Counties.

7. That commendable effort to keep open and uncomplicated communication, coordination and cooperation between agencies serving the handicapped be continued.

Activities designed to achieve the recommendation.—The efforts to keep open lines of coordination and communication with other disciplines and agencies having responsibilities for the handicapped are being maintained and expanded to include additional State agencies such as the division of mental health and mental retardation.

8. That specific consideration be given in all program planning to effect community acceptance of the handicapped.

Activities designed to achieve the recommendation.—Currently, the division is beginning a public awareness program to inform the public of vocational education opportunities for the handicapped and disadvantaged. This will be accomplished through film, brochures, a television spot announcement campaign, public gatherings, and other media.

9. That the continued development and implementation of a total management information system (MIS) for vocational education be given high priority.

Activities designed to achieve the recommendation.—It is intended for FVTAEIS to be fully implemented by the close of 1973–74.

As the student followup subsystem is further developed and utilized, there will be increased linkage with industry and State employment offices. This subsystem now constitutes an initial activity of the planned system of evaluating vocational education in Florida. By combining followup survey data with other data in the information system, the degree to which the vocational education effort is meeting the manpower needs of the State will be determined. The information system is coordinated and integrated with other information systems within the Florida Department of Education.

10. That resources be provided for developing and implementing a comprehensive public information program for vocational-technical education.

A public information program that is coordinated statewide which utilizes the expertise of appropriate specialists and involving persons representative of education, industry, labor and business, can help to develop positive attitudes about vocational and technical education.

Activities designed to achieve the recommendation.—Several activities of a public information program have been initiated on a statewide basis this year. Brochures, television commercials, Project Success and a network of community relations representatives have been developed to tell the story of vocational education to interested persons throughout the State.

11. That each district school board and community/junior college board of trustees have an organized and active general advisory

committee and appropriate program advisory committees for vocational education.

Activities designed to achieve the recommendation.—A recent survey shows that some 5,800 persons are members of organized general or occupational advisory committees serving 30 District School Boards and 14 Community College Boards of Trustees.

12. That the problem of facility funding for vocational-technical education facilities be given attention at the earliest possible date.

Lack of facilities is a major constraint, preventing enrollment of the 60 to 80 percent of high school students who should be enrolled in vocational education.

Activities designed to achieve the recommendation.—Section 236.076, Florida Statutes, requires that the State board of education give priority to vocational education capital outlay needs at the secondary level in all further allocation of Federal funds for construction.

To date 40 school districts have indicated an interest in having one or more high schools designated by the State board as area vocational education schools.

During 1972–73, $1,500,000 in Federal funds have been allocated to 14 district school boards for use at 14 designated high schools. These Federal funds will be matched by local district funds and used to construct facilities needed to provide more adequately for vocational education programs for high school students in grades 10–12.

SUMMARY AND RECOMMENDATIONS

Summary

It is a fact that the original concern of the Vocational Education Act of 1963, strengthened by the amendments of 1968, has been closely followed in Florida. Every district of the State has benefited from the Federal-State-local mutual investment in occupational education programs. Vocational-technical education is now widely accepted by educators, students at all levels and by the public as being a real part of education for life.

Groups such as legislators and leaders from business and industry have joined State and local vocational educators in planning programs and in telling the vocational education story. Illustrative of invaluable help has been that of the State advisory council which has participated in the planning function at the State level, to strengthen and expand programs. Total enrollments have increased drastically, up from 152,000 in 1963 to 330,000 in 1968 to 605,000 in 1972. Enrollments are expected to total about 806,000 in 1977. Service to disadvantaged and handicapped persons has been strengthened and vastly expanded. Enrollments have increased from 4,500 in 1968 to 104,500 in 1972, (total enrollments under all parts of the act). Vocational education to train for jobs has been increasingly emphasized and enrollments have climbed from 69,000 in 1963 to 199,000 in 1968 to 321,000 in 1972. Enrollments are expected to total over 466,000 in 1977.

Research has become a real part of the program of vocational-technical education in Florida and innovative and exemplary programs have been implemented and the results of these activies have been used to strengthen educational programs at all levels. New construction and new equipment purchases have provided first class facilities for vocational programs.

Districts and community colleges are among the institutions and schools which have profited from joint Federal, State and local leadership and finance. A large variety of quality vocational education programs have, through the statewide system of area vocational centers, been placed within commuting distance of 98 percent of the State's population. Guidance and counseling services and placement and followup activities are now a real part of the total program of vocational education.

The success of Federal, State and local joint efforts in Florida have given rise to the expression "vocational education does not cost—it pays".

Although not final proof of the success of vocational-technical education programs, nevertheless enrollments do show an important part of the Florida story. Gains in enrollments have vastly accelerated because of the Federal seed money provided by the Act of 1963 and amendments of 1968. Projected gains in the future will be heavily dependent on continuation of Federal funds to supplement State and local efforts.

SUMMARY OF ALL ENROLLMENTS IN VOCATIONAL-TECHNICAL EDUCATION IN FLORIDA—ALL LEVELS OF INSTRUCTION—ALL TARGET GROUPS

	1963	1968	1972	Projection 1977
Total enrollments (gainful)	69, 115	198, 666	310, 099	455, 769
Total enrollments, consumer and homemaking—part F	52, 020	82, 344	118, 750	134, 270
Enrollments—part G (net)			10, 979	10, 979
Prevocational or grades 7-9	31, 149	48, 692	165, 050	204, 927
Totals	152, 284	329, 612	60, 878	805, 945

Recommendations

The following recommendations are made to highlight areas of concern needing attention. They are listed without consideration of priority in relative importance.

1. Categorical aid should be continued; however, there is need to provide greater flexibility in transfer of dollars from one category to another when a State is demonstrating that it is meeting the intent of the act but dollar transfers are essential for the development of a comprehensive vocational education program to meet the needs of all residents of the State.

It is recognized that the U.S. Commissioner of Education has blanket authority to permit transfers, but criteria need to be established in law for his guidance in the administrative implementation of this authority as well as for the guidance of the State making such a request.

A State may have funds which it can appropriate in larger amounts for support of vocational education for certain target groups and lesser amounts for others. Vocational education is an interrelated Federal-State-local program. The composite financial effort and results of that effort need to be considered in making such a judgment rather than Federal funds alone.

2. Specific authorization should be provided for the use of funds from any category for construction and renovation of facilities to house programs.

Federal funds under the act basically are operational in nature. The thrust of Federal dollars within categories is to broaden vocational education programs, activities, and services for persons in those categories.

The time is fast approaching when increased operational funds may not be used effectively, either from a short-range or long-range point of view, without specific authority to use Federal funds for construction of new facilities or major renovation of existing facilities to house the additional programs.

The need for construction funds to appropriately and adequately house programs for disadvantaged and handicapped students as well as those at the secondary and postsecondary levels is most critical.

The categorization of funds and the elimination of the 33⅓% provisions of the 1963 act for construction was a serious blow to the orderly development of a comprehensive vocational education program in this state.

3. The greatest single handicap to the orderly development of a vocational education program within a State is the lack of up-to-date labor market information of a predictive nature on a continuing basis which may be used in program planning and evaluation.

There is a philosophy which has been expressed from time to time that the U.S. Department of Labor is the Federal agency responsible for the manpower of the Nation. If such is a prime responsibility of the U.S. Department of Labor, there has been no appropriate definitive labor market data at State and local levels which is usable in planning and evaluating vocational education programs.

This need has been pin-pointed by vocational educators for some years. On the one hand, vocational education has at times received criticism for not meeting manpower needs. On the other hand, there has been no specific effort other than that by vocational educators to determine the occupations for which training programs are justified.

Consideration should be given to authorizing State boards for vocational education to contract with State labor departments and others, if necessary, to provide labor market information of the proper type on a continuing basis with funds being appropriated in the act for this purpose.

4. An aggressive, effective vocational education program must have the built-in capability of changing its instruction to meet the needs of business, industry and the students.

A significant part of that change is dependent upon up-dated and new curriculum and curriculums guides.

Some limited activities in this area have been undertaken by the U.S. Office of Education. This approach is not the complete answer to this problem.

Funds need to be made available to States for the development and revision of curriculum and course materials on a continuing basis to support the program of a State.

As one views the increasing breadth of a comprehensive vocational education program in terms of career development the demand for curriculum is staggering.

5. The Federal fund thrust to serve the disadvantaged and the handicapped persons through vocational education programs, could be accelerated and perhaps more effective if increased and continuing appropriations were made for the work-study program.

There are many individuals, youngsters and adults, who need to, but cannot engage in vocational training without some financial assistance or some firm base.

In this regard, consideration needs to be given to making it possible for adults to earn an amount appropriate to their needs.

6. There needs to be a greater leadtime between the time appropriations and allocations to States are made and when the money begins to flow to States.

Although much effort and staff time at the State and local levels are expended in developing plans, both annual and long range, the present time schedule for appropriations detracts considerable from effective implementation of the planning effort.

7. A rapidly expanding and changing vocational education program demands increasing emphasis upon the training and retraining of personnel at all levels.

There is need for expansion of the EPDA program and financial effort.

8. An effective management information system at the State, district, institution, and school levels is essential to decisionmaking in regard to education and vocational education in particular.

It is most difficult to coordinate State and local development in this area when efforts in this direction at the national level are not coordinated either among agencies and projects being operated or between those agencies and the States.

There is need to effect centralization of this effort with effective coordination between the Federal Government and the States, as well as among States in the further development of a management information system.

9. The U.S. Office of Education is consistently making changes in reporting procedures and types of data required without sufficient lead time for a State to adjust to the new requirements.

Most changes have been made for reporting data on a fiscal year's operation during that fiscal year after State reporting procedures have been established and, in some instances, so late in the fiscal year that reports from local districts have already begun to flow into the State office.

Criteria need to be established for the guidance of Federal administrators in their administrative implementation of Federal laws so that undue and unnecessary hardship is not placed upon the States and local school districts.

10. As States move into a comprehensive vocational education program for career development, greater stress will need to be placed on work experience and cooperative training involving close cooperation between business and industry and the schools.

The Florida State Board of Education has adopted regulations which, under certain circumstances, permit high school seniors to work full-time under a cooperative education agreement between the schools and employers with such experience being accepted for the full credit normally earned through academic studies during that year.

With this change in policy, as well as the emphasis already being given to cooperative education in the senior high schools and work experience education at the junior high school level, the legal structure relating to the employment of youngsters 14 to 18 years of age, as "learners" or "trainees", needs to be streamlined without forfeiting the protection of law to minors.

It is estimated that 57 percent or as many as some 209,600 Florida high school students, would profit from these types of programs and should be enrolled in them by 1977.

There are three areas of primary concern: (a) the elimination of the redtape involved in obtaining "learner permits" from the U.S. Department of Labor, (b) the exemption of certain age groups, such as 14- and 15-year-olds, from the minimum wage requirements, and (c) authorization for employers engaged in interstate commerce to employ youngsters, 14 and 15 years of age, when they are in a work experience or cooperative education program conducted under an agreement with the school and under the general supervision of a representative of the school employed by the school full-time for that purpose.

11. There is great stress upon introducing innovation into the public school curriculum including concepts of a comprehensive vocational education program for career development.

Less attention, however, has been directed toward a means of bringing these changes about throughout a State.

The concept of the "exemplary project" as a means of determining the value of changes has been most significant, but to diffuse these concepts more broadly there is need for increased financial support in this category so that exemplary programs with proven value can be established as "demonstration projects" in other areas of the State.

12. In identifiable areas of a State there may be many individuals in need of vocational education, but jobs are just not available in such areas.

For jobs to be available, they must be created.

Each State board for vocational education should have the authority and financial capability to provide immediate training, tailor-made to the needs of a single new or expanding industry which is creating new jobs. The type of training could be limited to one year or less in length and be geared to semiskilled or skilled operator-type jobs.

Flexibility in approaches to providing this training should be considered.

13. Any program to move forward must have strong leadership with continuity in planning and administration at a level comparable to other elements in an organizational structure for a total educational program. It has been demonstrated repeatedly at local and

State levels that this is a concept fundamental to effective and efficient vocational education.

There is a critical need for adequate representation at the Federal level for vocational education to provide strong leadership and continuity. Leadership positions for vocational education within the U.S. Office of Education need to be on the same level in the organizational structure as those for other major elements of the total educational effort.

14. Although much effort is being expended to introduce innovation in vocational education programs, activities and services, the same type of emphasis is not being placed upon innovation in teacher training programs, particularly in the preservice and inservice training of teachers and guidance personnel.

There needs to be a thrust of support for innovation in teacher education compatible with new directions set by Federal and State legislation.

15. Career education has become the No. 1 priority for education in Florida and the United States. Major leadership for the career education thrust in Florida has come from the vocational division. If the State is to meet this highest priority need, special resources must be provided through special funds for research, exemplary, curriculum development, evaluation and dissemination. These funds should be administered by the vocational division, Florida Department of Education.

Leadership in the national development of career education has come from the U.S. Office of Education and the Bureau of Adult, Vocational and Technical Education using resources available to the U.S. Commissioner. If career education is to become a reality in the States and throughout the Nation, then leadership should be located in the U.S. Office of Education and additional human and fiscal resources should be made available to accomplish the task.

16. The concept presently in law that half of the research funds need to be retained by the U.S. Commissioner should be reviewed.

Basic research has a place in vocational education and to the extent necessary may need to be coordinated at the Federal level to serve nationwide needs. Basic research, however, significant as it may be, should not be the major thrust of research and exemplary funds.

In order to achieve program improvement at the State and local levels, basic research has little influence unless results can be translated from the theoretical into the practical within given operational situations.

The thrust of research and exemplary funds should be at the State and local levels to apply the findings of basic research projects already completed. Therefore, part C and part B funds should be made available to support projects directly related to the implementation of basic research rather than to conduct basic research itself.

17. Increased emphasis on evaluation and accountability at local, State, and Federal levels has necessitated the allocation of additional resources to design, develop, and implement appropriate methodology and processes.

Recent legislation in Florida also mandates the development of evaluation procedures designed to assess objectively the educational programs offered by the public schools. Additional legislation requires the adoption of: (1) Regulations setting forth minimum requirements for a comprehensive vocational education program; and (2) procedures to determine the extent to which such requirements are being met, including an examination of the employment performance or program participants as well as standards of educational output, with particular emphasis on job placement and satisfactory performance in employment. Since 1970, projects have been initiated to develop and validate product evaluation devices, including follow-up surveys of former students and their employers as well as comprehensive catalogs of behavioral objectives and criterion-referenced exercises for a limited number of vocational programs. In fiscal year 1974, a project will be initiated to develop process evaluation devices. Most of these projects have been supported with Florida research and development program moneys.

Although initial efforts in the development of an effective vocational evaluation system appear promising, much remains to be accomplished.

Continued State support at the current level cannot be assured, due to the assignment of additional priorities with the research and development program. It is recommended, therefore, that categorical assistance be provided by Bureau of Adult, Vocational and Technical Education, U.S. Office of Education, for the specific purpose of designing, testing, implementing and disseminating evaluative programs and devices to improve the quality of vocational-technical programs, services and activities.

Since these areas of concern have been neglected over the years, a significant financial thrust is necessary to begin moving State and local programs in this direction.

GEORGIA

State Director—Russell S. Clark

INTRODUCTION

The 1968 amendments have brought about significant changes in vocational education in Georgia. The act has served to redefine vocational education in a broader perspective than ever before. It now includes such things as facilitating occupational choice; providing training in a family of jobs rather than just a single skill; preparing the student for higher levels of vocational education; counseling and guidance; providing related instruction for occupations in which students are being trained, or instruction necessary for students to benefit from such training; and job placement. In short, it provides a curriculum designed to move the student from school to a job or to his next career step.

The 1968 amendments have resulted in a restructuring of education in Georgia in grades K–12. We have moved to a developmental, comprehensive and integrated program. It is developmental in its structure with objectives focusing on goals by grade levels. It is comprehensive in terms of providing program options for all students and a vocational enrollment distribution that approximates the manpower distribution. It is integrated in that it is related to other school discipline areas, such as vocational with academic, in order to make both more meaningful to the student. It begins in the elementary grades and continues through each succeeding level—junior high, secondary, postsecondary, and adult, serving as a core around which other school experiences are organized in order to utilize the natural motivation of youth toward careers.

In response to the leadership of the Federal Government as outlined in the broadly encompassing provisions of the forward looking 1968 amendments, the Georgia Department of Education in 1971 adopted the following goals for vocational education in Georgia:

1. To provide programs beginning in grades K–6 that will make youth aware of the world of work and their work role in life.
2. To provide youth starting with grades 7–9 with exploratory and prevocational programs and experiences geared to vocational development tasks.
3. To provide youth in grades 10–12 with work attitudes and job entry skills in board occupational clusters and/or the foundation for more specialized postsecondary education.
4. To provide postsecondary youth with specific skills and attitudes for employment.
5. To provide entry skills and job upgrading skills to adults in, or desiring to enter, the labor force.

6. To increase the accessibility of vocational programs for those populations to be served.

7. To provide assistance to students in vocational development tasks and provide vocational counseling services, including initial job placement, to populations served by, or to be served by, vocational education.

8. To provide persons served by vocational education with skills, attitudes, and competencies compatible with the present and future needs of Georgia's employers.

9. To provide adequate financing for vocational education and distribute funds in an equitable and effective manner that will provide incentive for expansion and quality.

10. To provide an adequate supply of competent educational personnel to operate vocational programs and to continually upgrade their abilities through inservice programs.

11. To assist consumers to make wise use of income, improve the home environment and improve the quality of family life.

12. To contribute to the holding power of educational agencies.

13. To provide leadership and consultation to local education agencies in program operations, program planning, and evaluation.

14. To interweave vocational education with a total educational system that will educate the whole person.

15. To improve the public understanding of and attitude toward vocational education.

16. To provide for the rapid dissemination of innovations to keep vocational programs up-to-date.

17. To increase the meaningful and constructive involvement of local citizens, parents, students, local educators, and employers in the planning, operation, and evaluation of vocational education.

This is the direction in which we have continued to move in Georgia. and the implementation has been facilitated through the strong support and encouragement of the Federal Government as the provisions of the 1968 amendments, followed by adequate appropriations, have made it possible.

The economy of Georgia is in a state of constant and rapid change and has been for three decades. It is a continuous goal of vocational education not only to keep pace with these changes, but also to anticipate and make provision for them.

Important changes in the economy are:

1. Shift from an agricultural economy to a manufacturing and service based economy.
2. Increasing growth of service industries.
3. Increasing need for professional and technical personnel.
4. Increasing number of women who are entering the labor force.
5. Trend for industries requiring more highly skilled workers to locate in Georgia.
6. Continuing demand for clerical workers, especially those with knowledge of computers and related machines.

Trends in vocational education in Georgia are:

1. Decreasing emphasis on production agriculture and increased emphasis on ag-related courses such as agri-business and ornamental horticulture.

2. Increasing emphasis on service occupations especially health, child care, sales, and repair services.

3. Increased emphasis on the training of technicians to support professional and technical personnel.

4. Emphasis on training child care workers so that this service will be available to women who wish to enter the labor force.

5. Emphasis on the training of skilled workers to attract rapid growth industries to Georgia.

6. Introduction of data processing techniques to the Office Education curriculum.

The Office of Adult and Vocational Education and the Georgia Bureau of Employment Security are constantly working together to more effectively relate vocational training to employment needs.

Today the uneducated are fast becoming an economic liability. Educated people are the capital of a technological society. In such a society education, including vocational education, takes on added dimensions as the initial entrance into employment requires increasingly higher levels of preparation. Thus, with the continued expension of educational opportunities for more individuals and the accompanying increases in educational expenditures, it is only natural that decisionmakers in our society provide the most economical and effective means for delivering educational services to the broad spectrum of persons needing them.

Education must be made meaningful for every student from kindergarten through postsecondary years. This summarizes our resolve for education in Georgia. The world is rapidly changing and we must keep ahead of the changes in order to survive and progress. This does not imply that traditional education must be abandoned, but it does indicate that tradition for the sake of tradition, when it serves to impede the meaningfulness of education, must be set aside, and new approaches applied.

Because it meets a need in the lives of today's youth, vocational education is beginning to come into its own. However, for this to happen, school boards must give attention to making vocational education a vital part of their educational program. They do this through the policies which they establish regarding its use. These must be broad in scope and designed to shape future action. They must also be fluid in nature in order to maximize the objectives for which they were intended. They must provide a useful guide to action and facilitate the planning and implementation process.

Georgia's recently adopted policies on vocational education tend to do this, and our commitment is to provide for the implementation of changes that meet the needs of all students.

Career development involves the development of the total individual, his values, interests, self-concept and aptitudes. Research indicates that a student's attitude toward work is rather well developed by the time he reaches the sixth grade. In current elementary school textbooks, the focus is generally limited to professions rather than spread over the full scope of occupations. Many teachers also place most emphasis on professional occupations when vocations are discussed. Students need the opportunity to view all work in a positive manner and to develop a proper outlook toward work during these important formative years.

Career self-awareness at the elementary level provides a firm foundation for the total developmental concept. It extends the discovery process to the working world and leads the child to develop positive values and attitudes about himself and others in that context. He discovers new talents and intersts and begins to learn so that he can influence his own environment.

Any classroom teacher or counselor can implement career awareness. Fusing career-oriented activities and resources into the ongoing elementary curriculum may be accomplished by one teacher in a self-contained classroom or by a group of teachers working across grade levels or interest or ability groups. In-service programs to enable teachers to implement career awareness are offered through the university system of Georgia, as well as through other resources available through the Georgia Department of Education.

In 1972, Georgia provided elementary career awareness programs in grades K–6 for 3,369 students in 14 projects throughout the State through an elementary staff numbering 84. By 1973 this had increased to 31,950 students in 68 projects with an elementary staff of 408. In 1977 we hope to reach 135,000 students in 300 projects through an elementary staff of 1,800.

Prevocational courses at the junior high level permit students to perform simple tasks in a simulated work environment where they are permitted to work with the tools, materials, processes and products peculiar to a given work-setting. These courses have helped to make education relevant to many during a critical decision point in their lives. In 1972 in grades 7–9, 53,054 students were involved in these activities. This has been increased to 64,615 in 1973 and it is anticipated that the students involved will reach 101,067 by 1977.

An outstanding program made possible by the 1968 amendments is our program of education and career exploration (P.E.C.E. program) for seventh, eighth or ninth grades. This program is designed to allow the student to acquire a base of experience, knowledge, and skills for future decisionmaking and to make a tentative choice of a broad occupational area for in-depth exploration. At present we have 120 programs in the State with a total enrollment of 21,600 students.

The above enrollments for elementary career awareness programs in grades K–6 and those for the prevocational courses mentioned above are not included in the total vocational education enrollments set forth below.

PART B—STATE VOCATIONAL EDUCATION PROGRAMS

Total vocational education enrollments

1963	114, 717
1968	224, 206
1972	305, 604
1977	532, 445

These totals include all occupational vocational education. Progress in enrollments is shown in that there was a 65-percent increase in 1968 over the 1963 figure, a 73-percent increase in 1972 over the 1968 number and an anticipated increase of 57 percent in 1977 over 1972 enrollments.

Job Training Enrollments

Job training enrollments in Georgia by job training area and by high school, posthigh school, and adult for fiscal years 1963, 1968, 1972, and projects for 1977 are set forth in chart I which follows. These enrollments include all persons enrolled in courses provided with Federal funds under part B. MDTA job training enrollments are listed separately on the same sheet.

GENERAL DESCRIPTION

Secondary Programs

In order to enable more of Georgia's youth to prepare themselves for successful employment in this changing economy, a concerted effort is being made to develop vocational education as a major component of the high school. A comprehensive high school is defined as a center specifically designed, equipped, staffed, and administered for the purpose of preparing high school youth occupationally as well as academically for their next step in life, whether it be entrance into the world of work or entrance into postsecondary education. The school must offer an occupational curriculum designed to serve regular, disadvantaged, and handicapped students.

In addition to serving high school youth, the school also serves out-of-school youth and adults after the regular school day by offering courses designed for those who have already entered the labor market.

CHART I.—JOB TRAINING ENROLLMENTS

	1963			1968			1972			1977		
	Secondary	Post-secondary	Adult	Secondary	Post-secondary	Adult	Secondary	Post-secondary	Adult	Secondary	Post-secondary	Adult
Agriculture	26, 479		11, 419	27, 640	137	9, 331	24, 923	196	12, 626	25, 720	110	13, 724
Distributive education	1, 027	139	6, 552	2, 154	256	10, 561	4, 119	875	7, 870	7, 240	1, 147	9, 953
Health		798	789		1, 407	2, 460		2, 400	4, 011		2, 732	4, 951
Home economics				159	62	3, 121	1, 908	1, 330	7, 912	2, 184	2, 052	8, 169
Business education	518	3, 498	5, 349	1, 369	3, 602	22, 585	3, 521	5, 389	17, 025	4, 291	6, 321	29, 045
Technical		1, 244	597		2, 045	7, 535		2, 693	5, 069		3, 074	11, 648
Trade and industrial	1, 852			5, 336	6, 215	47, 597	11, 869	9, 997	32, 017	14, 506	10, 272	33, 257
Total	29, 876	5, 679	24, 706	36, 658	13, 724	103, 190	46, 340	22, 880	86, 530	53, 941	25, 708	110, 747

MOTA JOB TRAINING ENROLLMENTS

	1963	1968	1972
Health	0	650	497
Business education	0	360	264
Trade and industrial	309	460	3,807

High schools with at least 1,000 students in grades 9–12 may qualify for funding of a vocational education department comprised of at least six occupational programs. Schools with less than 1,000 may qualify for funding of five occupational programs. These programs must then be developed as an integral part of their high school facilities and curricula. Other small high schools without occupational programs and within commuting distance (25 miles), by agreement with the comprehensive high school, may send students on a part-day basis for the occupational courses. Students from feeder schools will remain identified with their home high school for their basic academic education. Transportation shall be provided by the system from which the students come by extending their bus routes. Upon approval from the Division of Pupil Transportation Services, the additional transportation cost may be provided from State funds.

Comprehensive high school vocational courses are established under the multioccupational or "cluster concept" of instruction. The multioccupational concept is aimed at the preparation of 10th-, 11th-, and 12th-grade youth for entry level capability in a variety of related, rather than specific, occupations. This concept is based on the assumption that most secondary school students have no realistic basis for decisionmaking along the lines of selecting a specific trade. It is designed to broaden the individual's potential employability by virtue of offering a wider range of employment skills across several occupational areas. It is also designed to prepare students for making career decisions regarding specialization within the vocational cluster and whether or not there is a need for further vocational technical training.

CHART II.—A DEVELOPMENTAL VOCATIONAL CURRICULUM: GRADES 7 THROUGH 12

7	8	9	10-11-12
Program of Education and Career Exploration.[1]	6 to 12 week mini-prevocational courses.	1 year prevocational courses.	Preparatory courses in multi occupations.
Service	Area I: Service Health Service Public Service Personal Serive Food Service	Area I: Health and Personal Service Public Service Food Servite	Area I: Paramedical Personal Service Public Service Food Service
	Area II: Home Economics (related) Clothing and Textile Child Care Home and Institutional Management Food and Nutrition	Area II: Home Economics Related Occupations	Area II: Child Care Clothing and Textile[2] Institutional Management
Business organizational	Area III: Business Office Data Processing Business Contract Management and Finance	Area III: Office Data Processing	Area III: Office Data Processing
Technology	Area IV: Industrial Arts (Technology)	Area IV: Sales and Distribution	Area IV: Sales and Distribution
Outdoors	Area V: Agriculture and Natural Resources Production Horticulture Agri-business Forestry Wildlife and Recreation	Area V: Transportation Communications Construction Manufacturing	Area V: Transportation[3] Graphic Arts Construction[3] Drafting and Design Metal Working Electronics Electro-mechanical[2]
		Area VI: General Agriculture	Area VI: Production Agriculture Horticulture[2] Forestry Recreation and Wildlife Agri-business[2] Ag-mechanics[3]
		Area VII: Environmental Control Occupations	Area VII: Environmental Control Occupations
			Area VIII: Cooperative Education

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[1] Schools that cannot implement this program must offer an acceptable alternative.
[2] Sales would be offered as an option for each course.
[3] Ag-mechanics and transportation will not be duplicated in the same school.

At grades 10, 11, and 12, the school provides at least 6 vocational clusters (5 for schools with less than 1,000 enrollment in grades 9–12), each of which is offered for 2 years on a 2-hour class basis. In order for the office education program to qualify as a cluster, it must meet the criteria set forth by the State department of education for an approved business education program. At least one of the six cluster offerings (or of the five cluster offerings for schools with less than 1,000 enrollment) must be either from area I or area II, and at least three (one for schools with less than 1,000) must be from area V. A cooperative program may be counted as one of the six clusters (or as one of the five clusters for schools with less than 1,000). (See chart II for names of courses under the various areas I–VIII). Teachers of vocational clusters must meet the certification requirements for such vocational teachers as set forth by the State Department of Education.

At present Georgia has 43 operational comprehensive high schools, an additional 19 under construction, and 13 more than are in the planning stage.

Postsecondary Programs

The growth and development of postsecondary and adult vocational-technical training programs has not been without the problems generally encountered in other States. Significant among these have been:

1. The need for a definitive, valid, uniform, and automated system of reporting from the local education agency to the State level.
2. All ongoing programs are filling a training need and are sustained by successful job placement. Without additional funding, program expansions into new and emerging fields can only be made by curtailing or closing a proven program.
3. Newer job fields which have established themselves with a degree of permanence are eagerly sought after. There are numerous programs throughout the state in such fields as data processing, hydraulics, mechanical technology, electronics, plastics, emergency medical technician, etc. There has been a limited interest in environmental protection programs such as water quality control and solid waste disposal; recent negotiations with other State agencies have the objective of expanding technical training in these areas.

The extent of postsecondary programs in Georgia is discussed further in the succeeding section of this report.

Postsecondary Courses

The 10-year period of 1963 to 1973 was a significant growth period for postsecondary vocational education in Georgia. The construction program which was begun in 1961, culminated in 1973 with programs conducted in 23 area vocational schools, 2 State-operated schools, 4 Adult Centers, and a joint junior college program at Brunswick. This growth put vocational training within a 30-mile radius of 90 percent of the State's population. Day enrollments increased from some 5,000 in 1963 to over 22,000 in 1973, while evening enrollments went from some 25,000 to over 86,000. Renewed emphasis is now being placed upon more student-centered efforts which relate to improve the quality of training rather than to continue the emphasis upon numbers of students.

For a comparison of postsecondary enrollment by type of institution, see chart III.

Disadvantaged and Handicapped Students

Prior to 1973, Georgia's 25-percent set-aside funds provided for disadvantaged and handicapped through the 1968 amendments were being administered through the project method. Guidelines governing special projects to serve the disadvantaged and handicapped were developed. The guidelines included a major objective of having both secondary and post-secondary schools implement new programs and modify their existing curriculums and educational structure to more effectively provide for the needs of the disadvantaged and handicapped. Each system wishing to compete for these monies had to submit a proposal to the office of adult and vocational education outlining in detail a step by step plan for how it would:

CHART III.—POSTSECONDARY ENROLLMENTS COMPARING TYPE OF INSTITUTION, 1972

	Area vocational schools (vocational enrollments)	Junior colleges (vocational enrollments)	Adult Centers (vocational enrollments)
Agriculture	196	0	
Distributive education	875	333	
Health	2,400	7	109
Home economics	1,330		
Business education	5,389		
Technical	2,693	46	
Trade and industry	9,997		
Total	22,880	386	109

NOTE.—These are the only kinds of public institutions in Georgia in which postsecondary vocational programs are offered.

1. Provide additional vocational education programs to disadvantaged and handicapped students.

2. Provide a greater total school emphasis on programs for the disadvantaged and handicapped.

3. Interlock vocational and academic education.

4. Provide supportive services for students classified as disadvantaged and handicapped.

5. More effectively utilize all school and community resources to serve the disadvantaged and handicapped.

Each project at the secondary level consisted of a plan of vocational education from grades 7 through 12 which included an exploratory, prevocational and vocational phase. Each project included a major thrust toward providing a developmental and comprehensive vocational program. This was accomplished by implementing new vocational programs or prevocational programs at strategic points in the school curriculum, interlocking vocational with academic curriculum, and movement toward more effective utilization of all community resources.

Another phase of Georgia's disadvantaged and handicapped program was an effort to encourage individual teachers at the local level to examine their curriculum in terms of more effectively servicing the disadvantaged and handicapped. The Office of Adult and Vocational Education provided grant awards up to $1,500 per teacher to be used in the purchase of supplies and materials to help teachers of disadvantaged and handicapped students to individualize their instructional program. In order to qualify for the $1,500 grant, the teacher was required to present a plan showing:

1. How he proposed to change his instructional program to more effectively serve the disadvantaged and handicapped.

2. How the materials to be purchased could be used to more individualize the instruction.

3. How the program would be interlocked with other academic and vocational areas.

In postsecondary programs 25 instructional programs were individualized in order to accommodate a wide range of student ability levels and job objectives. Inservice training programs were provided to enable instructors to modify their instruction to better meet the needs of disadvantaged and handicapped students.

In 1973 the thrust of the disadvantaged and handicapped program at the secondary level has been concentrated in the coordinated vocational and academic education program (CVAE). This program provides underachieving students with concrete experiences geared to their interests and level of achievement. It is designed on an interdisciplinary approach wherein students are block scheduled (scheduled in a group) so that each discipline can be taught in relation to what the student is doing in the vocational lab or on the job. At present we have 120 CVAE programs with 5,468 students enrolled.

The postsecondary thrust for aiding the disadvantaged and handicapped this year is centered in 23 postsecondary evaluation labs. These are work-sampling learning labs designed to serve the disadvantaged and handicapped student.

Chart IV shows the increased effort that has been made in Georgia to meet the needs of disadvantaged and handicapped students since the passage of the 1968 amendments.

CHART IV.—DISADVANTAGED AND HANDICAPPED STUDENTS

Program	1963	1968		1972		1977	
		Disadvantaged students	Handicapped students	Disadvantaged students	Handicapped students	Disadvantaged students	Handicapped students
Agriculture	(1)	812	(2)	7,573	1,466	10,897	2,651
Distributive education	(1)		(2)	3,261	696	2,100	434
Health	(1)		(2)	2,416	551	1,587	361
Home economics	(1)	292	(2)	4,618	1,240	1,929	291
Business education	(1)	202	(2)	14,870	4,492	13,160	8,734
Technical	(1)		(2)	1,326	772	3,041	611
Trade and industrial	(1)	214	(2)	13,643	4,519	2,870	1,913
CVAE	(1)	25	(2)	1,913	368	9,775	1,150

[1] Information not available.

[2] None.

Adults

Chart V provides a breakdown of the adult enrollment according to those in programs who are unemployed and in need of job training (preparatory), and those who are presently employed and in need of job retraining (supplemental).

The adults enrolled in such courses using Federal Manpower funds are set forth under chart I. No attempt has been made to project these figures for 1977 since the future of manpower legislation seems uncertain at present.

Although there is a continuing need for providing both preparatory and supplemental training, there seems to be a tendency for them to more closely resemble each other. The number of students who need preparatory training, but must hold full-time jobs and attend school in the evening, seems to be increasing. In recognition of this trend, the 1973 legislature approved 70 new teacher positions for the purpose of extending the schoolday. Under this concept, facilities will be open and available from 8 a.m. until 11 p.m. Costly facilities will thereby be better utilized and maximum program flexibility will be realized.

CHART V.—ADULT ENROLLMENTS

Program	1963		1968		1972		1977	
	Preparatory	Supplemental	Preparatory	Supplemental	Preparatory	Supplemental	Preparatory	Supplemental
Agriculture	115	11,304		9,331	21	12,605	138	13,586
Distributive education	459	6,093	184	10,377	554	7,316	697	9,256
Health	300	489	751	1,709	1,517	2,494	1,882	3,069
Home economics			691	2,430	648	7,264	654	7,515
Business education	1,391	3,958	4,337	18,248	4,482	12,543	7,552	21,493
Technology	120	477	721	6,814	996	4,073	2,330	9,318
Trade and industrial			7,941	39,656	4,365	27,652	4,656	28,601

Financing

Allocation of funds to local educational agencies is based on consideration of the following items:

1. The need of the population of the local school system for vocational education;
2. Specific plans to meet identified needs;
3. The compatability of plans with long-range objectives;
4. Current and projected manpower needs and job opportunities at the local, State and National levels.

Each local system is required to submit a detailed local plan, including budget for all vocational programs and activities for which State and Federal funds are used. The local plan is received by State staff and approved by the State board for vocational education.

First priority of new moneys for vocational education goes to systems receiving a less proportionate share of vocational funds according to an established priority formula.

Special incentive grants are allocated to local systems for the purpose of implementing career education programs.

It is not necessary for the State to use variable matching of local funds. Federal funds are over matched 2 to 1 and over 80 percent of the matching funds is obtained from State MFPE or State vocational funds.

Atlanta is the only city in Georgia with a population in excess of 250,000. Chart VI illustrates the disparity between population and vocational expenditures. The reasons for this disparity are given below.

CHART VI.—THE RELATIONSHIP BETWEEN POPULATION AND EXPENDITURES

Location	Population	Percent
Georgia	4,589,575	100
Atlanta	496,973	10.8
Clay County	3,636	.08

Location	Federal funds	Percent	State funds	Percent
Georgia	15,541,092		27,231,000	
Atlanta	975,730	6.3	2,502,582	9.2
Clay County	1,541	.01	34,509	.13

Reasons for Disparity

Secondary students residing in sparsely populated areas of the State must be provided access to vocational education programs of sufficient diversity to meet their individual needs. The lack of population density necessarily increases the per student cost for providing such vocational education programs in rural areas. Traditionally more local funds for vocational education programs have been available in larger urban areas than rural areas of the State. State funds have been used to provide programs in areas of greatest need among those systems least able to provide adequate financial support to such programs.

Construction and Equipment

Investments for construction and equipment from Federal, State, and local sources are shown separately on chart VII for fiscal 1963 through 1968, 1969 through 1972, and 1973 through 1977 (projected).

CHART VII.—CONSTRUCTION AND EQUIPMENT INVESTMENTS

	Federal	State	Local	Total
1963-68	12, 479, 187	22, 810, 715	14, 776, 548	50, 066, 450
1969-72	20, 945, 173	8, 319, 673	10, 980, 079	40, 244, 925
1973-77	6, 396, 223	44, 608, 582	22, 826, 074	73, 830, 879
Total	39, 820, 583	75, 738, 970	48, 582, 701	164, 142, 254

During the period 1963–68, there were 23 area vocational technical schools, two State-operated technical and vocational schools and 14 comprehensive high schools in operation. In this same period five of the area vocational technical schools were expanded.

Throughout the period 1969–72 there was no change in the number of area vocational technical schools, but three were expanded. During this same period, there was a considerable expansion in the number of comprehsnsive high schools in operation. These were increased to 43.

For the period 1973–77, 94 new comprehensive high schools are projected. Within the same time, all of the postsecondary schools are projected for expansions.

OTHER FEDERAL PROGRAMS

Exemplary Programs and Projects

Prominent exemplary programs include the program of education and career exploration (PECE program) described earlier in the introduction and the Cobb County career education project. The Cobb County project was funded with part D Commissioner's money, and the PECE program was funded with part D State money.

In addition to these there were 13 special exemplary programs for disadvantaged and handicapped adults attending post-secondary schools. These programs began in the 1971–72 school year. They served 1,500 disadvantaged and handicapped students who otherwise would not have been able to attend postsecondary vocational-technical schools. There are now 23 of these projects in the State, and they will be serving 2,000 persons per year by 1977.

In 1977 there will be more than 100 job placement programs in the State as a result of fiscal year 1974 part D state share exemplary funds being spent to demonstrate and implement job placement programs in 82 school systems.

The coordinated vocational and academic education program (CVAE) described above under disadvantaged and handicapped students was developed using part G in disadvantaged and handicapped funds.

Chart VIII sets forth the program achieved and anticipated for these exemplary programs.

CHART VIII.—EXEMPLARY PROGRAMS

	1968	1972	1977
PECE (students)	50	16,000	40,000
Cobb County, career education project (students)	0	600	7,500
Disadvantaged and handicapped adults in postsecondary schools (students)	0	1,500	2,000
Job placement (programs) (secondary)	0	53	100
CVAE (students)	25	2,996	11,500

Residential Vocational Education

There are two residential technical-vocational schools in Georgia, and the services performed by these two centers will continue to be needed indefinitely. These schools serve not only the surrounding area, but accept students from any area who need the features and services offered by a residential facility.

Consumer Homemaking and Occupational Home Economics

In 1969 the entire curriculum for consumer-homemaking was rewritten. This new curriculum departed from the usual year long comprehensive program and divided the program into four major areas: food and nutrition, clothing and textiles, housing and management, and family and child development. Consumer education was strengthened throughout the guides. The new curriculum design was primarily to meet the needs of systems planning to implement the quarter plan. More than one-third of the systems in the State will use the quarter plan in the coming year. Quarter courses allow more students to enroll in courses more relevant to their own needs.

A new Georgia consumer education guide was developed in 1972 by an interdisciplinary team of teachers chaired by a home economics teacher educator. To encourage use of the guide, systems were offered minigrants for teaching materials for teacher education. Twenty systems agreed to pilot the guide. A 3-week workshop was held in the summer of 1972 for selected teachers from the pilot systems. The purpose of the workshops was to enable these teachers to become thoroughly familiar with the use of the guide, to review and evaluate available resource materials, to upgrade their own skills in consumer education, and to gain leadership skills to enable them to organize local workshops and to guide local teachers in planning necessary changes to include consumer education at every grade level. Evaluations recently received prove that this program was highly successful. It will be repeated until all systems have had the opportunity to participate.

Because of nationwide concern for the nutrition and health of the American people and because of soaring food prices, special emphasis was placed on nutrition and food buymanship. In service workshops, special resource persons and grants for teaching materials were made to teachers in economically depressed areas.

At the postsecondary and adult level, major emphasis has been on the following: (1) Training or retraining of home economics teachers in the concepts for consumer education as identified in the guidelines; (2) development of State and local curriculum guides; (3) inservice workshops on working with the disadvantaged and handicapped; (4) making consumer education mini-courses available to postsecondary students enrolled in area vocational schools; and (5) conducting adult classes in economically depressed areas.

CHART IX.—ENROLLMENTS FOR CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	61,539	53,614	159	54,760	18,156	6,052	1,908	643	850
Adult	22,917	16,571	3,121	12,541	8,763	752	7,912	3,975	390
Total	84,456	70,185	3,280	67,301	26,919	6,804	9,820	4,618	1,240

Two schools (Pickens and Waycross) have mobile units which go into the community. Coosa Valley has purchased a mobile unit and employed an instructor effective July 1, 1973.

Full-time instructors are employed in 18 area vocational-technical schools. When additional funds are available we hope to add at least one instructor in each school that does not currently have one.

There seems to be an increasing interest and need for consumer education in Georgia at both the postsecondary and adult levels.

Cooperative Vocational Education

The coordinated vocational and academic education program (CVAE) is a cooperative vocational education program provided for through these funds. It is described more fully above under disadvantaged and handicapped students. The progress in enrollments is set forth under chart X.

Work-study Programs

The work study program provides part-time employment for youth who are in need of earnings from employment in order to begin or continue their vocational training on a full time basis. The local education agency must provide 20 percent of the program cost and arrange for someone at the local level to coordinate the program. Students may be placed in schools, Federal or State agencies, or other nonprofit agencies. One thousand five hundred students profited by this program in Georgia in 1972. Many of these would not have been able to continue in school if this program had not been in existence. Since many vocational students come from disadvantaged and low-income families, and since this is a method of self-help which helps a participant to maintain his dignity while meeting his needs, it is most important that such programs be continued. This program's present participants and those projected for 1977 are shown in chart X.

CHART X.—COOPERATIVE EDUCATION (CVAE)

	1963	1968	1972	1977
CVAE	(1)	25	2,996	11,500
Work-study	(1)	(1)	1,500	(1)

[1] Not available.

Research and Training

Part C funds have been used to further the career education concept in the State of Georgia. Portions of the State share have been used to develop the career and self-awareness component for elementary schools as described above in the introduction.

Under part C, projects have produced programs of value to career education in general and to the vocational education components in particular. These products include individualized instructional materials for 10 of the curriculum programs, programed mathematics materials for 5 of the curriculum programs, instructional materials for 8 of the postsecondary vocational-technical programs, and learning activities packages to fuse distributive education into the trade course curriculum at the postsecondary level.

Additional projects and programs made possible by part C funds were developed as described below:

1. A special program was provided to determine the availability of jobs in Georgia as they relate to vocational concepts and to report this information to students in a usable form.
2. A model adult guidance program was developed to be used with evening school students in postsecondary area vocational-technical schools.
3. Through part C funds, Georgia was able to participate in the Ohio State Center's system approach to guidance projects.
4. Georgia also participated in the development of an occupational information center of education and industry in Atlanta's city school system.
5. Special internship experience was provided for University of Georgia vocational doctoral students in order to encourage them to become active in vocational education in the State of Georgia.
6. A dissemination center was established at the University of Georgia.
7. Georgia is also participating in an interstate consortium to develop learning activity packages for distributive education students.
8. A model differentiated staffing process was tested in an area vocational-technical school.
9. An individualized training program was developed to teach vocational instructors to become managers of the learning process in their own classrooms.

10. An individualized and immediate machine shop program was developed for postsecondary vocational-technical schools.

11. A film depicting Georgia's concepts of career education was developed and is currently in use nationwide.

12. The Office of Adult and Vocational Education participated in a special student financial aid study to determine the financial needs of postsecondary vocational-technical students.

STATE ADVISORY COUNCIL

The most significant contributions of the State Advisory Council during the last 5 years were the following recommendations made by them. Each of these recommendations is followed by a brief explanation of the action taken in response to the recommendation:

1. *Recommendation.*—Establish minimum criteria for a developmental program of career and vocational education in all grades and offer incentive grants to schools meeting the requirements.

Action taken.—Minimum criteria for a developmental program of career and vocational education in all grades have been established and comprehensive career education grants for grades K–12 were awarded to 54 systems agreeing to meet these requirements.

2. *Recommendation.*—Apportion school systems into geographical areas in which State staff personnel could assist schools working to meet the criteria.

Action taken.—A program manager system has been established in which the State has been divided into 18 educational service districts with one or more program managers from the State staff appointed for each district. These program managers are described in greater detail under 1.31–4 of part I of the State plan.

3. *Recommendation.*—Give local systems greater responsibility for the planning, monitoring, and evaluation of career and vocational programs through:

(a) Making the annual local plan for career and vocational education the sole contract between the State board of education and the local school system and through;

(b) Requiring the local board of education to take formal action on the local plan for career and vocational education prior to its submission to the State department of education.

Action taken.—The local plan has now become the primary contractual plan between the State board of education and the local school system.

4. *Recommendation.*—Examine the system of distribution of funds to offer all students of all systems an equal opportunity to participate in vocational programs. The present system under which 28 percent of the vocational funds are allocated to schools serving 48 percent of Georgia's student population cannot hope to meet the needs of the growing urban areas.

Action taken.—The formula for allocating funds to local school systems has been revised. All applications for local funding procedure has been established based on manpower needs, vocational needs, relative ability to pay, and excess costs. A detailed description of this formula is set forth under 3.27 of part I of the Georgia State plan.

5. *Recommendation.*—Establish an office of career vocational and manpower education at the highest possible operating level within the Georgia Department of Education.

Action taken.—At the beginning of the 1973 fiscal year the Office of Adult and Vocational Education was formed with an assistant superintendent being given the responsibility for the office.

SUMMARY AND RECOMMENDATIONS

A growing need for vocational education in our schools at all levels is now being recognized. This is a challenge that is rooted in the social and economic welfare of our people. It affords an opportunity to reach out into the total population and meet its most pressing needs.

Schools offering a vocational education program make available to all students realistic, worthwhile alternatives. Through this important program our State is enabled to continue its economic growth, and at the same time meet the needs of newly located industries.

Today both the Federal and State governments must work together to appropriate necessary funds to help provide a more meaningful education for young people.

Vocational education can become the vehicle through which American youth are able to identify themselves as future workers and enable to take on the habits, attitudes, and skills that guarantee the continuance of man's endeavors through constructive work. These are days that call for decisive action. This country cannot afford to wait to make the changes that are necessary for education to become relevant and the rewards of fruitful labor available to everyone.

Georgia has been moving forward in the area of vocational education during the past decade. Since 1961, 23 area vocational-technical schools have opened throughout the State. Added to the two existing State residential schools, this made a total of 25 postsecondary vocational education centers. We are also expanding our program by moving to provide vocational education in junior colleges and adult centers.

At present Georgia has 43 operational comprehensive high schools, an additional 19 under construction, and 13 mere that are in the planning stage. We expect the total number to increase to 82 by the end of fiscal year 1974.

Georgia has also moved to provide career awareness programs at the elementary level in grades K–6 and is continuing to expand its exploratory programs in grades 7–9. The resolute progress that we have made in these areas is set forth above. We believe that these programs are important and continued support for them is imperative.

All youth, as a part of growing up, are entitled to experience the psychological meaning of work to examine the benfits to society of different forms of work, and to test themselves in different work roles. In addition, every young person should be encouraged to examine exploratory experiences in terms of what they mean to him personally and to plan and pursue educational programs that will help him reach his goal. But many youth are reaching early adulthood denied these experiences and are consequently unable to successfully enter employment or adjust to the role of workers. There is much evidence that many youth have no identity with work.

Too often in the past education has been advocated for its own sake rather than as a means to an end with equal emphasis given to earning a living.

The framers of the Vocational Education Amendments of 1968 took into account the continuous changes in our economic and social structure that have rendered obsolete the old patterns through which individuals moved from childhood into adult work roles. It was against this background that they redefined vocational education to make it a developmental vocational process enabling the recipient to progress from childhood into an adult work role and in fact throughout a career.

It is our belief that this is the direction in which education in this country should continue to move, and that the pace should be accelerated because of the immediacy of the need.

HAWAII

State Director—Samson E. Shigetomi

INTRODUCTION

Within the past decade, vocational education in Hawaii has experienced two significant periods of growth. The first ocurred with the passage of Act 39, S.L.H. 1964, which authorized the establishment of community colleges. The second period came after the development of the State master plan for vocational education, the resulting Act 71, S.L.H. 1968, and the Vocational Education Amendments of 1968, Public Law 90–576.

Each State develops a system which meets its specific requirements of providing the most efficient, economical, and effective occupational programs for its citizenry. Hawaii has a statewide system of operation, and two State agencies are responsible for all education from kindergarten to graduate school. The State department of education is primarily responsible for K–12 programs, while the University of Hawaii system handles all postsecond[redacted]tinuing education. Some adult education programs are offered by [redacted] department of education, which mainly consist of adult basic and general education and a few courses in vocational education.

A State master plan for vocational education was prepared in response to Senate Concurrent Resolution 43, S.L.H. 1967. One of the primary objectives of vocational education is to "Provide optimal training for the State's human resources for the labor market while simultaneously maximizing the human potential of the individuals involved."

The role of the secondary schools in meeting this challenge is to provide opportunities for the development of occupational competence for job entry and prepare students to pursue higher levels of career objectives at the postsecondary institutions or through apprenticeship. Hence, the major emphases of vocational-technical education programs in the secondary schools are on the acquisition of basic verbal, scientific, and mathematical skills and knowledge, the exploration of career opportunities, and the acquisition of some occupational skills and knowledge in an organized and systematic manner.

The general strategy is to treat preparation for a vocation as a continuum in which the secondary schools provide the necessary basic skills for entry level jobs, while more specialized occupational preparation takes place in community colleges, on-the-job, or in other postsecondary institutions. Education is conceived of as an open-ended sequence of goals and as a continuous process.

In the process of developing a flexible program which better prepares students to adapt to technological changes, the high schools have adopted the cluster concept approach. This approach enables individuals to acquire a broad base of fundamental skills for greater occupational exploration and mobility within a given occupational field.

For maximum articulation, the high school cluster approach branches out into specific occupational programs in postsecondary institutions.

The latter training programs are correlated with the requirements of employment. Table 1 illustrates some of the clusters of occupations to be offered by the department of education and an example of the availability of specific programs in the community colleges within an occupational field. As an example, a student completing the health occupation cluster may enroll in any one of specialization programs listed under the community colleges.

Up until June, 1964, postsecondary vocational and technical education were provided by technical schools. Act 39, S.L.H. 1964, authorized the board of regents to establish community colleges and to include the existing technical schools in this development. By 1969, all of the technical schools were converted into community colleges.

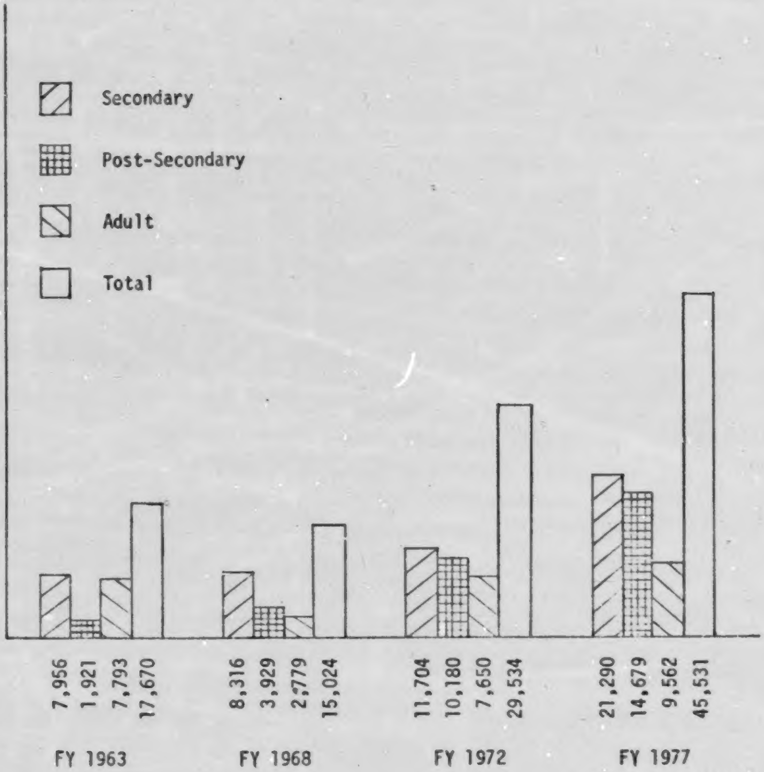
TABLE 1.—PROGRAM ARTICULATION BETWEEN SECONDARY SCHOOLS AND COMMUNITY COLLEGES

Department of education clusters of occupations	Community colleges occupational specializations
Business occupations.	
Personal/public service occupations	Fire science. Apparel design and construction. Police science. Library technology. Recreational instructor. Cosmetology.
Food service occupations.	
Electrical/electronics occupations.	
Construction/civil technology occupations	Architectural drafting. Civil engineering technology. Carpentry. Sheetmetal and plastics. Welding.
Mechanical occupations.	
Health occupations	Dental assisting. Medical assisting. Practical nursing. Radiological technician. Registered nursing. Inhalation therapy.
Technical graphics occupations.	

Figure 1 illustrates secondary, postsecondary, adult, and total vocational education enrollments for fiscal years 1963, 1968, and 1972 and enrollment project for 1977.

During the period from 1963 to 1972, the secondary enrollment increased by 47 percent, while the postsecondary enrollment more than quadrupled for the same period. The extended day program in community colleges makes it difficult to differentiate between postsecondary and adult education enrollments. Because of the difficulty in obtaining accurate adult headcount, the enrollment does show a slight decrease from 7,793 in 1963 to 7,650 in 1972.

Figure 1
Graphical Illustration Depicting Secondary,
Post-Secondary, Adult, and Total Vocational Education Enrollment



PUBLIC LAW 90-576. "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

a. Job Training Enrollments

Table 2 provides a breakdown of the total vocational education enrollment by occupational areas for the 4 different fiscal years. Since there is no distinction made as to whether a vocational education program is federally funded or not, it is not possible to denote enrollment for part B funds only.

TABLE 2.—VOCATIONAL EDUCATION ENROLLMENT BY TRAINING AREA

Training Area	Fiscal year 1963				Fiscal year 1968				Fiscal year 1972				Fiscal year 1977				Total
	S	PS	A	Total	S	PS	A	Total	S	PS	A	Total	S	PS	A	Total	
Total	7,956	1,921	7,793	17,670	8,316	3,929	2,779	15,024	11,704	10,180	7,650	29,534	21,290	14,679	9,562	45,531	107,759
Agriculture	1,283	0	537	1,820	1,385			1,856	2,291	34	23	2,348	2,650	39	29	2,718	8,742
Distributive	209	0	3,648	3,857	225	69	208	502	475	888	317	1,680	3,300	1,050	396	4,746	10,785
Health	0	129	0	129	0	202	0	202	0	417	44	461	0	690	55	745	1,537
Home economics	0	0	0	0	91	0	66	157	407	0	0	407	480	0	0	480	1,044
Office	6,464	537	0	7,001	6,615	1,703	147	8,465	6,668	3,996	0	10,664	10,010	6,200	0	16,210	42,340
Technical	0	92	294	386	0	661	75	736	88	514	26	628	400	600	32	1,032	2,782
Trade and Industry	0	1,163	3,314	4,477	0	1,294	1,812	3,106	1,362	4,090	7,233	12,685	4,000	5,580	9,041	18,621	38,889
Other	0	0	0	0	0	0	0	0	413	241	7	661	450	520	9	979	1,640

S = Secondary.
PS = Postsecondary.
A = Adult.

b. General Description

The number of vocational education programs in the postsecondary institutions more than doubled during the period from 1963 to 1972. In addition, students who at one time would have been turned away due to academic reasons are now being permitted to enroll in developmental courses while taking some of their specialized subject courses.

At the secondary level, with Public Law 90–576 providing the impetus for change, the following programs emerged:

> The pre-industrial preparation (PIP) program designed primarily for disadvantaged persons. Under the PIP program, occupational experiences planned for the disadvantaged student are identical to those of the regular student, except that the former uses his occupational experiences as the vehicle for also acquiring his basic academic knowledge and skills by correlation.
>
> The occupational skills (OS) program designed for individuals identified as learners with limited abilities, such as the mentally retarded educables and some of those with learning disabilities and borderline cases.
>
> The introduction to vocations program which provides occupational exploration as well as the teaching of occupational skills.[2]

An early admission program was also established in some of the community colleges. This program enables high school students with special interests and aptitudes to enroll in vocational education courses not offered in the secondary schools and receive community college credits upon successful completion. This sagacious approach resulted not only in better utilization of the equipment and facilities but expanded opportunities for students where needs were not being met and enabled potential droupouts to finish high school and take occupational courses at the community colleges.

c. Post-Secondary Courses

Table 3 helps to illustrate the growth of the postsecondary vocational education programs and enrollment during the period from 1963 to 1972. There are actually 55 occupational programs offered in the community colleges. Some of these programs have been grouped and are reported as one in Table 3. The postsecondary enrollment more than quadrupled during the reported 10-year period.

Hoomana Vocational School is situated in Oahu Prison and provides occupational education to inmates. Although the number of programs remained constant, progress is being made toward individualization of instruction, developmental education, and related instruction.

TABLE 3.—POSTSECONDARY VOCATIONAL EDUCATION ENROLLMENTS

Institutional programs	Fiscal year 1963			Fiscal year 1968			Fiscal year 1972			Total post-secondary
	CC	HVS	Total	CC	HVS	Total	CC	HVS	Total	
Total	1,921	(1)	1,921	3,824	105	3,929	10,107	73	10,180	16,030
Total regular program	1,921	(1)	1,921	3,824	105	3,929	9,866	73	9,939	15,789
Agriculture	0		0	0		0	34		34	34
Agricultural supply and service				0		0	34		34	34
Distributive	0		0	69		69	888		888	957
General merchandising							222		222	222
Hotel and lodging				21		21	384		384	405
Recreation and tourism							30		30	30
Midmanagement				48		48				48
Distributive, other							252		252	252
Health	129		129	202		202	417		417	748
Dental assistant				22		22	21		21	43
Nursing—Associate degree							70		70	70
Practical nursing	109		109	109		109	234		234	452
Radiologic technology							34		34	34
Inhalation therapy							17		17	17
Medical assisting	20		20	71		71	41		41	132
Office	537		537	1,703		1,703	3,996		3,996	6,236
Accounting and computing	157		157	586		586	1,352		1,352	2,095
Business data processing				76		76	394		394	470
Filing, office machines				359		359	1,489		1,489	1,848
Stenographic, secretarial and related	277		277	500		500	286		286	1,063
Typing and related	103		103	182		182				285
Office, other							475		475	475
Technical	92		92	661		661	514		514	1,267
Architectural technology				144		144				144
Civil technology				36		36	108		108	144
Engineering technology	26		26							26
Electronics technology	66		66	137		137	195		195	398
Fire technology				122		122				122
Oceanography technology							211		211	211
Police technology				222		222				222

See footnotes at end of table.

TABLE 3.—POSTSECONDARY VOCATIONAL EDUCATION ENROLLMENTS—Continued

Institutional programs	Fiscal year 1963			Fiscal year 1968			Fiscal year 1972			Total post-secondary[1]
	CC	HVS	Total	CC	HVS	Total	CC	HVS	Total	
Trades and industry	1,163	....	1,163	1,189	105	1,294	4,017	73	4,090	6,547
Auto body and fender	45	....	45	69	17	86	176	10	186	317
Auto mechanics	145	....	145	150	13	163	478	20	498	806
Aircraft maintenance	17	....	17	76	....	76	107	....	107	200
Commercial art							82	....	82	82
Carpentry	68	....	68	83	11	94	215	23	238	400
Electricity	57	....	57				127	....	127	184
Heavy equipment operator				31	....	31			31	31
Plumbing and pipefitting				16	....	16			16	16
Custodial occupation							184	....	184	184
Diesel mechanic	26	....	26	26	....	26	25	....	25	77
Drafting	87	....	87	20	....	20	276	....	276	383
Industrial electrician				131	....	131				131
Radio and TV	34	....	34							34
Metal working							268	....	268	268
Machine shop	61	....	61	66	....	66				127
Sheet metal	54	....	54	45	....	45				99
Welding and cutting	93	....	93	87	30	117	....	20	20	230
Cosmetology	47	....	47	58	....	56	69	....	69	174
Fireman training							307	....	307	307
Law enforcement training							510	....	510	510
Library technology							39	....	39	39
Recreation instructor							520	....	520	520
Educational assistant							69	....	69	69
Baker	34	....	34	25	....	25	34	....	34	93
Cook/chef				91	....	91	130	....	130	221
Waiter/waitress				19	....	19	11	....	11	30
Quanty food occupations, other	214	....	214	78	....	78	134	....	134	426
Refrigeration/air conditioning	39	....	39	55	....	55	61	....	61	155
Dressmaking	106	....	106	63	....	63	160	....	160	329
Trades and industry, other	36	....	36	....	34	34	35	....	35	105
Total special programs	0	....	0	0	0	0	241	....	241	241
Group guidance							13	....	13	13
Disadvantaged program							201	....	201	201
Cooperative program							27	....	27	27

CC = Community colleges.
HVS = Hoomana Vocational School.
[1] Information not available.

d. Disadvantaged Students

Perhaps the most dramatic impact made by the Vocational Education Amendments of 1968 is shown in tables 4 and 5. Table 4 shows the number of disadvantaged students served during 1968 and 1972 and also a projected number for 1977.

The educationally disadvantaged students overcome their deficiencies through developmental programs in reading, writing, mathematics, and improvement of study skills.

Some of the notable achievements in fiscal year 1970–71 include:

(1) Substantial and significant gains were achieved in vocabulary, comprehension, and rate of reading. Students averaged a total gain of 2.7 years in reading achievement over a 4-month instructional period. Three hundred and eighty disadvantaged students participated, and only 45 dropped out during the semester.

(2) Significant gain in excess of 15 percent for both comprehension and speed was noted for another group of 115 out of 135 disadvantaged students who completed a different reading course.

(3) A career orientation workshop was conducted to enable disadvantaged students to make better and more realistic vocational decisions commensurate with their aptitudes and interests.

(4) A sequential program of study for basic mathematics was offered to 150 students, and 77 percent completed the program. This special project enabled students to proceed individually throughout the course.

TABLE 4.—DISADVANTAGED ENROLLMENT IN REGULAR AND SPECIAL PROGRAMS, PART B FOR DISADVANTAGED

Instructional program	Fiscal years				
	1963	1968	1972	1977	Total
Total	(1)	105	4,037	5,992	10,134
Total regular	(1)	105	3,418	5,064	8,587
Agriculture	(1)	0	287	429	716
Agriculture production			210	315	525
Ornamental horticulture			70	104	174
Agriculture supply and service			7	10	17
Distributive	(1)	0	111	164	275
General merchandising			61	91	152
Hotel and lodging			44	65	109
Recreation and tourism			2	3	5
Distributive, other			4	5	9
Health	(1)	0	59	86	145
Dental assistant			14	21	35
Nursing, associate degree			6	8	14
Practical nursing			35	52	87
Radiologic technology			2	3	5
Inhalation therapy			1	1	2
Medical assisting			1	1	2
Home economics	(1)	0	114	170	284
Care and guidance of children			10	14	24
Clothing management, products and service			9	13	22
Food management, products and service			80	120	200
Institutional and home management and supplies			13	20	33
Home economics, other			2	3	5
Office	(1)	0	1,112	1,663	2,775
Accounting and computing			235	352	587
Business data processing			21	31	52
Filing, office machines			509	763	1,272
Stenography, secretarial, and related			282	422	704
Typing and related			11	15	26
Office, other			54	80	134
Technical	(1)	0	42	61	103
Electronics technology			17	25	42
Oceanography technology			25	36	61

See footnote at end of table.

TABLE 4.—DISADVANTAGED ENROLLMENT IN REGULAR AND SPECIAL PROGRAMS, PART B FOR DISADVANTAGED—Continued

Instructional program	Fiscal years 1963	1968	1972	1977	Total
Trades and industry	(1)	105	1,693	2,491	4,289
Auto body and fender		17	82	128	227
Auto mechanics		13	459	677	1,149
Automotive, other			35	52	87
Aircraft maintenance			11	15	26
Commercial art			20	30	50
Carpentry		11	98	131	240
Electricity			31	45	76
Construction maintenance trade, other			299	448	747
Custodial services			33	49	82
Diesel mechanic			6	8	14
Drafting			51	75	126
Graphic arts			56	83	139
Metal working			133	199	332
Welding and cutting		30	20	20	70
Cosmetology			5	7	12
Fireman training			92	138	230
Law enforcement training			75	112	187
Library technology			2	3	5
Recreation instructor			48	71	119
Educational assistant			1	2	3
Baker			13	19	32
Cook/chef			32	47	79
Waiter/waitress			3	4	7
Quantity food occupation, other			38	56	94
Refrigeration			9	13	22
Dressmaking			31	45	76
Millwork/cabinetmaker		34	0	0	34
Trades and industry, other			10	14	24
Total special	(1)	0	619	928	1,547
Disadvantaged program			201	302	503
Cooperative program			3	4	7
Work-study program			413	619	1,032
Group guidance			2	3	

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[1] Information not available.

e. Handicapped Students

Services to handicapped persons as shown in table 5 were not available until after fiscal year 1968. Some of the reasons for a delay in the implementation of the program for the handicapped were difficulty in identifying certain types of handicaps, lack of trained teachers, and inexperience. Funds earmarked for the handicapped have been used to conduct statewide workshops, provide tutorial services to handicapped persons, and improve specialized counseling services.

TABLE 5.—HANDICAPPED ENROLLMENT IN REGULAR AND SPECIAL PROGRAMS, PART B FOR HANDICAPPED

Instructional program	Fiscal years 1963	1968	1972	1977	Total
Total	(1)	(1)	1,181	1,765	2,946
Total regular	(1)	(1)	1,162	1,737	2,899
Agriculture	(1)	(1)	27	40	67
Ornamental horticulture			27	40	67
Distributive	(1)	(1)	118	177	295
General merchandising			103	155	258
Hotel and lodging			7	10	17
Recreation and tourism			1	2	3
Distributive, other			7	10	17

See footnote at end of table.

TABLE 5.—HANDICAPPED ENROLLMENT IN REGULAR AND SPECIAL PROGRAMS, PART B FOR HANDICAPPED—Continued

Instructional program	Fiscal years 1963	1968	1972	1977	Total
Health	(1)	(1)	8	13	21
Nursing, associate degree			2	3	5
Practical nursing			4	6	10
Radiologic technology			1	2	3
Medical assisting			1	2	3
Home economics	(1)	(1)	180	269	449
Care and guidance of children			11	16	27
Clothing management products and services			16	24	40
Food management products and services			130	195	325
Institution and home management and supplies			2	3	5
Home economics, other			21	31	52
Office	(1)	(1)	243	366	609
Accounting and computing			42	63	105
Business data processing			8	13	21
Filing, office machines			138	207	345
Stenographic, secretary, and related			38	57	95
Office, other			17	26	43
Technical	(1)	(1)	5	8	13
Electronics technology			4	6	10
Oceanography technology			1	2	3
Trades and industry	(1)	(1)	581	864	1,445
Auto body and fender			17	25	42
Auto mechanics			50	73	123
Automotive, other			181	272	453
Commercial art			6	9	15
Carpentry			14	17	31
Electricity			1	2	3
Construction maintenance trades, other			224	336	560
Custodial services			9	13	22
Diesel mechanicity			1	2	3
Drafting			15	23	38
Industrial electricity			6	9	15
Graphic arts			6	9	15
Metal working			16	24	40
Welding and cutting			3	4	7
Cosmetology			1	2	3
Law enforcement training			2	3	5
Recreation instructor			4	4	8
Cook/chef			10	15	25
Quantity food occupation, other			9	13	22
Refrigeration			2	3	5
Dressmaking			4	6	10
Total special	(1)	(1)	19	28	47
Disadvantaged program			12	18	30
Handicapped program			7	10	17

[1] Information not available.

f. Adults

Table 6 provides a breakdown of the total adult enrollment by occupational areas. Under our present accounting system, it is not possible to determine what portion of the total enrollment should be reported for part B funds.

Moreover, the enrollment reports from campuses do not make a distinction between preparatory and retraining. Hence, it is difficult to accurately provide the information requested in section 2f of the outline. Approximately 70 percent of the total adult enrollment are apprentices.

TABLE 6.—ADULT VOCATIONAL EDUCATION ENROLLMENT

Instructional program	Fiscal years 1963	1968	1972	1977	Total
Total	7,793	2,779	7,650	9,562	27,784
Total regular programs	7,793	2,779	7,643	9,553	27,768
Agriculture	537	471	23	29	1,060
Ornamental Horticulture	0	0	23	29	52
Agriculture Supply and Services	537	471	0	0	1,008
Distributive	3,648	208	317	396	4,569
Automotive	101	0	0	0	101
Finance and Credit	242	0	0	0	242
General Merchandising	168	0	0	0	168
Personal Services	87	0	0	0	87
Hotel and Lodging	253	65	0	0	318
Real Estate	256	0	40	50	346
Recreation and Tourism	174	0	277	346	794
Retail Trade, Other	1,982	0	0	0	1,982
Transportation	51	0	0	0	51
Wholesale Trade, Other	255	0	0	0	255
Distributor, Other	82	143	0	0	225
Health	0	0	44	55	99
Nursing, associate degree	0	0	20	25	45
Nursing assistant	0	0	24	30	54
Home economics	0	66	0	0	66
Home Furnishings; Equipment; and Service	0	66	0	0	66
Office	0	147	0	0	147
Accounting and computing	0	81	0	0	81
Filing, office machines	0	38	0	0	38
Typing and related		28	0	0	28
Technical	294	75	26	32	427
Architectual technology	0	14	0	0	14
TV and radio technology	60	0	0	0	60
Civil technology	0	22	0	0	22
Refrigeration	26	0	0	0	26
Electronics technology	172	13	17	21	223
Electrical technology	36	0	0	0	36
Oceanography technology	0	0	9	11	20
Police technology	0	26	0	0	26
Trades and industry	3,314	1,812	7,233	9,041	21,400
Auto body and fender	16	15	26	33	90
Auto mechanics	195	46	76	95	412
Commercial art	24	0	0	0	24
Carpentry	384	258	2,242	2,801	5,685
Electricity	0	0	631	789	1,420
Heavy equipment operator	0	0	153	191	344
Masonry	0	43	141	176	360
Painting and decorating	105	105	404	505	1,119
Plastering	50	11	53	66	180
Plumbing and pipefitting	377	155	701	876	2,109
Dry wall and tapers	0	23	45	56	124
Glazing	0	70	135	169	374
Roofing	0	0	61	76	137
Cement finishers	0	17	62	78	157
Floor layers	0	33	76	95	204
Shipbuilding	62	60	0	0	122
Ironworker, fabrication	0	48	329	411	788
Ironworker, structure	103	0	244	305	652
Ironworker, reinforced steel	0	58	104	130	292
Asbestos workers	0	0	66	83	149
Module home workers	0	0	149	186	335
Drafting	71	0	0	0	71
Electrical fineman	508	0	0	0	503
Industrial electrician	32	274	269	336	911
Electronic occupation	62	39	186	233	520
Radio and TV	10	0	0	0	10
Metal working	0	0	450	563	1,013
Machine shop	116	27	0	0	143
Sheet metal	253	231	0	0	484
Welding and cutting	250	66	0	0	316
Cook/chef	0	0	47	59	106
Waiter/waitress	0	0	141	176	317
Hotel maid	34	[illegible]	0	0	34

TABLE 6.—ADULT VOCATIONAL EDUCATION ENROLLMENT—Continued

Instructional program	Fiscal years 1963	1968	1972	1977	Total
Trades and industry—Continued					
Quan. food occupation, other	385	161	0	0	546
Refrigeration	131	72	163	204	570
Dressmaking	29	0	10	13	52
Millworker/cabinetmaker	0	0	224	280	504
Trade and industry, other	117	0	45	56	218
Special program	0	0	7	9	16
Handicapped program	0	0	7	9	16

TABLE 6A.—NUMBER SERVED BY ADULT MANPOWER PROGRAMS, FEDERALLY FUNDED ONLY

Program	Fiscal years 1973 -	1968	1972	1977
Total		49,863	89,416	(1)
Adult basic education (Department of Education only)	(1)	5,125	11,086	(1)
Concentrated employment program	(1)	(1)	894	(1)
Department of Vocational Rehabilitation	(1)	4,105	5,547	(1)
Employment service (Department of Labor)	(1)	40,200	56,370	(1)
Job opportunities program (optional)	(1)	(1)	124	(1)
Job opportunities program (regular)	(1)	(1)	710	(1)
MDTA (includes redevelopment area resident)	(1)	335	997	(1)
Model Cities (manpower component only)	(1)	(1)	11,800	(1)
Operation mainstream	(1)	98	201	(1)
Project transition	(1)	(1)	178	(1)
Public employment program	(1)	(1)	487	(1)
Public service careers	(1)	(1)	130	(1)
Work incentive program	(1)	(1)	889	(1)

[1] Information not available.

g. Financing

(i) In our statewide school system, there are no local school districts. The approximate ratio of Federal fund distribution to the University of Hawaii system and the State Department of Education is 60:40. Part of the University of Hawaii system portion is budgeted to the office of the State director for vocational education for the administration of vocational education in the State.

The ratio for the distribution of Federal funds was approved by the State Advisory Council on Vocational and Technical Education and both operating agencies in 1969. Since then, as the State allotment increased, the respective agencies received their proportionate shares.

(ii) In Hawaii, only the city of Honolulu—situated in the island of Oahu—has a population in excess of 250,000 people. Table 7 illustrates the distribution of Federal and State funds to both State agencies and a detailed breakdown of the University of Hawaii system portion.

Hawaii Community College serves the county of Hawaii, Maui Community College serves the county of Maui (includes the islands of Lanai and Molokai), Kauai Community College serves the county of Kauai. Honolulu Community College, Kapiolani Community College, Leeward Community College, and Hoomana Vocational School are located on the island of Oahu. Information pertaining to the distribution by counties of the department of education portion of Federal funds is not available at this time.

The allocation of Federal funds to the community colleges is not limited to enrollment alone but takes into consideration such factors as need, gaps in programs and services, availability of certain services, and statewide priorities.

TABLE 7.—DISTRIBUTION OF STATE AND FEDERAL FUNDS FOR VOCATIONAL EDUCATION, FISCAL YEAR 1972

	Total	Department of education	University of Hawaii system	City and county of Honolulu (Oahu)					Hawaii County, Hawaii Community College	Maui County, Maui Community College	Kauai County, Kauai Community College
				Honolulu Community College	Kapiolani Community College	Leeward Community College	Hoomana vocational School	Office of VP for community colleges			
State funds	8,616,852	2,384,705	6,232,147	2,316,153	911,909	557,307	166,823	494,420	1,197,806	303,750	283,979
Less CIP	1,953,000		1,953,000	1,200,000	65,000				688,000		
Net State funds (excluding CIP)	6,663,852	2,384,705	4,279,147	1,116,153	846,909	557,307	166,823	494,420	509,806	303,750	283,979
Federal funds	2,295,169	857,031	1,438,138	298,244	216,472	148,711	40,832	146,468	299,495	139,845	148,071
Adjustments	114,609		114,609	25,804	15,000	8,000	6,805	11,000	32,000	10,000	6,000
Net Federal funds	2,180,560	857,031	1,323,529	272,440	201,472	140,711	34,027	135,468	267,495	129,845	142,071
Total State and Federal funds	8,844,412	3,241,736	5,602,676	1,388,593	1,048,381	698,018	200,850	629,888	777,301	433,595	426,050

h. Construction

Project	Allotment	Fiscal year	Status
Construct classroom and shop building	$176,000	1964	Completed.
Construct hotel and restaurant building	300,000	1964-66	Do.
Construct electricity-electronics building	201,000	1964-66	Do.
Construct hotel and restaurant training building	798,500	1965-70	Do.
Construct cosmetology building, construct auto body shop, and repair cafeteria roof.	929,000	1966-71	Do.
Construct library—administration building	1,394,000	1966-68	Do.
Construct Cafeteria Lanai	204,000	1967	Do.
Construct auto body shop building	210,000	1966-69	Do.
Construct library building	720,000	1966-70	Do.
Construct engineering and technical trades building	1,400,000	1967-70	Do.
Construct extension to diesel shop	135,000	1968-69	Do.
Construct business education and social science building	751,000	1969-71	Do.
Construct library-classroom building	3,820,000	1969-74	In progress.
Modernize vocational education shops	885,000	1969-73	Completed.
Plan trade-industrial complex	1,700,000	1970-75	In progress.
Construct administration building	900,000	1970-74	Do.
Modernize vocational education facilities	120,000	1971-72	Completed.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

The list of exemplary programs or projects and the number of persons served is shown in table 8.

The preindustrial preparation program at the secondary level has proven to be so successful that plans are being made so that this program will be available in all of our secondary schools in the State.

As described in section 1d, exemplary projects designed to serve the disadvantaged individuals have been very successful. As projects are evaluated and proven to be successful, they become part of the total disadvantaged program.

In addition, the occupational information and guidance service center project was funded under part D of the Commissioner's discretionary fund. This 2-year project enabled us to develop a career information booklet, which is being used by counselors in both private and public schools throughout the State; conduct several workshops in vocational education guidance for teachers and counselors; conduct intensive occupational training for disadvantaged students during the summer months; and produce and disseminate various booklets, pamphlets, brochures, and other informational items to schools, libraries, community agencies, and manpower agencies.

b. Residential Vocational Education

The fact that Hawaii is made up of many islands oftentimes makes it difficult to equalize opportunities throughout the State. The development of residential vocational schools may make it easier to serve students in outlying areas. However, we are not in a position to indicate the total number of centers needed at this time.

TABLE 8.—EXEMPLARY VOCATIONAL EDUCATION ENROLLMENTS, PART D

Exemplary project	Fiscal years			
	1963	1968	1972	1977
Preindustrial preparation for the disadvantaged (secondary)	(1)	(1)	269	[3] 3,600
Remedial instruction in basic composition and reading/study skills for low achieving students (postsecondary)	(1)	(1)	390	(2)
Independent study programs in health services and typewriting instruction (postsecondary)	(1)	(1)	200	(2)
Remediation program for the academically, economically and physically handicapped students to work with their counselors (postsecondary)	(1)	(1)	225	(2)
Pilot demonstration project for production of multimedia instructional material for disadvantaged students in automotive and drafting (postsecondary)	(1)	(1)	5	(2)
A program to assist vocational students to improve formal speech habits (postsecondary)	(1)	(1)	150	(2)
Maui community survey (postsecondary)	(1)	(1)	4	(2)
Development and implementation of a balanced curriculum in business education to include integrated, interdisciplinary learning in computational skills, practicum in office procedures, office skills of typewriting, shorthand and machine transcription (postsecondary)	(1)	(1)	400	(2)
Total enrollment	(1)	(1)	1,643	3,600

[1] Not applicable.
[2] Will not be supported by part D funds in fiscal year 1977.
[3] Information not available.

c. *Consumer Homemaking and Occupational Home Economics*

Enrollments in consumer homemaking and occupational home economics are shown in table 9.

The overall objectives of the consumer and homemaking programs at the secondary and adult levels are to provide instruction which would enable individuals and families to improve the quality of family life through effective development and utilization of human and material resources. Consumer education is a common thread that runs through all aspects of instruction for home and family living. Wise consumer decisions and favorable human relationships are basic to personal and family life. Instruction in food nutrition, child development, clothing and textiles, housing and home furnishings, and management and family economics all emphasize selection, use and care of goods and services, budgeting and other consumer responsibilities.

The major types of financial support to the program in the economically depressed areas of the State to improve and expand the instructional activities for a greater number of participants included the following:

(1) Providing instructional materials especially designed for the target population to enhance learning experiences which are relevant to the program participant.

(2) Providing direct grants to secondary schools in the target areas and to schools not within the areas but serving a proportionate number of students from one or more surrounding poverty pockets. The schools used these funds to provide the activities which are usually financed by participants in the program. Without this financial assistance, such activities are generally very limited in the programs of schools in the depressed areas because of the added financial burden on families.

(3) The adult community schools within the target areas were also assisted financially to enable them to expand their tuition-free instructional program in consumer and homemaking education. Through

the auspices of the community schools, some model neighborhood area adult groups in Kalihi-Palama continued to be served in off-campus situations.

(4) Specially funded summer programs in consumer and homemaking education were also conducted in the target areas to meet the needs of the individuals participating.

TABLE 9.—CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS, ENROLLMENTS

	1962-3 (Fiscal year 1963) Vocational home economics	1967-68 (Fiscal year 1968)		1971-72 (Fiscal year 1972)					
		Home economics useful employment: homemaking	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	11,787	14,273	91	12,189	2,945	249	407	114	180
Adult	1,073	1,651	66	3,450	1,754	0	0	0	0
Total	12,860	9,229	157	15,639	4,699	249	407	114	180

d. Cooperative Vocational Education Enrollment

Significant increase in cooperative education enrollment as a result of Federal funds is shown in table 10. With the exception of Windward Community College, which started in fall, 1972, all of the community colleges have cooperative education programs and the enrollment is continuously increasing. The rapid growth of the cooperative education in the community colleges is affecting the availability of job stations in some secondary school programs.

TABLE 10.—COOPERATIVE VOCATIONAL EDUCATION ENROLLMENT

Cooperative programs	Fiscal year— 1963	1968	1972	1977	Cooperative total
Total	311	304	1,308	1,700	3,623
Part B	311	304	291	400	1,306
Part G			1,017	1,300	2,317

e. Work-Study Programs

Table 11 shows the work-study program enrollments for the secondary level only. The total Hawaii's work-study allotment of $23,164 is given to the State department of education for high school students.

As part of the work experience component, the vocational-technical work-study program and the Neighborhood Youth Corps are administered to meet the needs of the enrollees. These programs provide eligible students with opportunities to test their vocational choices by placing them in positions comparable to their vocational goals. By providing financial assistance sufficiently early enough, needy students are encouraged to continue their education and thus reduce the dropout rate. For example, in a survey of six schools, the attendance rate of students under the vocational-technical work-study program increased from 73.4 percent in 1971–72 to 91.1 percent in 1972–73. Similarly, the grade point average of students enrolled in this survey increased from 2.2 to 2.8.

TABLE 11.—WORK STUDY ENROLLMENTS

Programs	Fiscal year 1963	1968	1972	1977	Total
Total	(1)	121	744	810	1,675
Other (Post-secondary)	(1)		331	360	691
Part H (Secondary)	(1)	121	413	450	984

Not available.

f. Research and Development Projects, Including Training

Research and development funds allotted to the State under part C have been invaluable in that such funds enabled the initiation of two developmental projects in the Department of Education and several other projects in the University of Hawaii system. Some of the projects are briefly described below:

Data Collection and Maintenance System

The data collection and maintenance system is being developed to improve the overall management system in vocational education. This system is needed to provide the necessary information for current administration, planning, and research activities. The data collection system is also being developed as part of the total Department of Education data system which is also in the development stage. The total system is expected to be ready to implement by 1978.

The program for the data collection system to generate the statistical reports for the U.S. Office of Education has been completed and tested. A subsequent program for the followup report has also been completed and is now being tested.

The Career Development Continuum, K-14

The career development continuum project is being developed in three phases: (1) to research and develop a conceptual model for a career development, and (3) to provide in-service training to implementors of the program.

The career development program is planned to be incorporated within the existing educational structure and organization in the State of Hawaii. This program is envisioned to produce lasting and important results for the youth of Hawaii by improving the areas of guidance and counseling. The program will integrate and combine elements of self-appraisal, self-understanding, adequate educational planning, academic preparation for work, attitudes toward work, and occupational information, and occupational training. This overall project will be closely correlated with the emerging career development models.

The first phase of the project was completed in December 1972, and the prototype guides are expected to be completed by June, 1973.

Community Manpower Surveys and Related Vocational Education Requirements

Funding is provided from a number of different sources including general State vocational education funds, part B funds and other State agencies' funding resources in terms of personnel services.

(1) Kauai community occupation survey (part C research funds were utilized in the first phase of the survey in fiscal year 1972)—Anticipated completion and publication of labor demand and supply requirements of Kauai County is the focus of this project which is being carried out by the institutional researcher at Kauai Community College in cooperation with the RCU staff and the Hawaii State Department of Labor and Planning and Economic Development.

(2) Health Manpower Survey—A Statewide survey of health manpower requirements was initiated in spring 1972 and continued in the summer and fall of the year. Due to late questionnaire returns, the final data and published results are not expected until early summer 1973. The project is a cooperative project between Kapiolani Community College and the Hawaii State Department of Labor and Industrial Relations with coordination and computerized costs being provided by the Hawaii RCU.

A Statewide Follow-up of Postsecondary Vocational Education Graduates.

Since the community colleges were interested in a systematic, comparable method of vocational graduate follow-up inquiry, a pilot follow-up survey had been conducted at one of the college for the previous year and the basic techniques and survey instrument were then applied toward the Statewide survey. Coordination, data tabulation services were supplied by the Hawaii RCU with designated college project researchers agreed to implement the collection of survey information and the analyses of survey results for their respective campuses and implications for their vocational instruction programs.

STATE ADVISORY COUNCILS

The Hawaii Advisory Council on Vocational and Technical Education was established in May, 1969, and restructured in July, 1970 by the State legislature. Since 1970, the council has served simultaneously as the State Commission on Manpower and Full Employment with 18 members. To date, it has issued three evaluation reports (fiscal year 1970, fiscal year 1971, fiscal year 1972), two reports for information purposes aimed at the general public, and a number of special reports for the State board's use.

Perhaps the most significant contribution of the council has been in facilitating communication between vocational education programs and labor, industry, and the general public. Through active council support of vocational education activities and council participation in workshops, conferences, and seminars, administrators and instructional personnel have benefited from council input. In particular, the council has become active recently in promoting vocational education in the State legislature and has taken a more active role in communicating its concerns to the State Board for Vocational Education.

The role of the council *vis-a-vis* the State director's office has been a mutually supportive and reinforcing role rather than an adversary one.

Council recommendations in many cases have coincided with decisions made independently by the State director's office for program improvement. They include:

a. Updating of the State Master Plan for Vocational Education

Developed in 1968, the master plan provided the basis for the restructuring and strengthening of vocational education on the secondary and post-secondary levels. The council recommended that an assessment of progress under the State master plan be made and a study to update or revise the plan be undertaken. Such a study will be completed by July, 1973.

b. Articulation Between the Secondary and Post-Secondary Levels

The council recommended the formation of a joint committee of the Department of Education and the community colleges to meet periodically to coordinate courses and services. An articulation conference was held in November, 1972, followed by a series of workshops which produced proposals for agreement in four basic areas in vocational education. Work will continue in additional areas in fiscal year 1974.

c. Counseling and Guidance

The council recommended better vocational guidance and counseling at all levels of schooling. Under the direction of the Department of Education, a career development continuum project for grades K–14 was initiated in fiscal year 1973. Curriculum guides will be completed in July, 1973, for K–12 components.

A new Hawaii career information center serving Honolulu district needs as well as providing Statewide information services will be established by summer, 1973. The project succeeds the Occupational Information and Guidance Service Center which was phased out. The council had recommended that a project succeed the OIGSC which would continue the cooperative arrangement between the DOE and the community colleges to provide a centralized career information service. The Hawaii Career Information Center will meet these needs.

d. Programs for the Handicapped

The council recommended more programs for the handicapped at the community college level. An intensive food service training program for deaf and hard-of-hearing adults was completed in June, 1972, and other programs will be initiated in summer, 1973.

SUMMARY AND RECOMMENDATIONS

a. Summary

The graphs and tables in this report have shown substantial increases in enrollment. Besides increases in enrollment, other developments included encouraging vocational educators to provide more flexibility and options and to seek new solutions to old problems. The drive toward flexibility caused practically all vocational education courses which were lumped in large units to be reduced to smaller but more effective and functional instructional units.

The community colleges were also requested to develop concentrated and accelerated training programs to meet the needs of students with widely varying levels of intelligence, aptitude, aspiration, and interest.

Secondary and community college educators—in their endeavor to seek better curriculum patterns, more effective learning and teaching processes, and better articulation—are questioning themselves on current practices and critically studying those programs which they suspect were based more on tradition than on sound educational considerations.

It seems that we are at the threshold of greater improvement, development, and progress in vocational education, but more funds are needed. Although much progress has been made and many inspiring success stories can be told, there is much still to be done.

b. Recommendations

I believe that:

Federal appropriations for vocational education should be increased to the level of authorization.

Allocation of Federal funds to the various States should take into consideration problems which are unique to a state. For example, did you know that: the cost to transport an itinerant teacher from Oahu to the Island of Hawaii is $52 (round trip)? The transportation cost to send vocational educators to the Mainland for a meeting or conference for upgrading will exceed $215?

The meeting place for regional meetings of the U.S. Office of Education should be rotated among the States within the region. The host State will then be able to take advantage of the resources available prior to or after the meeting.

IDAHO

(State Director—Roy D. Irons)

INTRODUCTION

Vocational education in Idaho has grown approximately 100 percent (16,926 to 33,895) during the period fiscal year 1963 to fiscal year 1972. It is projected to increase another 35 percent by fiscal year 1977 to 45,500. Much of the motivation for these gains has come from the Vocational Education Act of 1963 and the amendments of 1968. Another major growth reason was the tremendous awakening of the populace and the State legislature toward the need for vocational education.

Fiscal year:	
1963	16, 926
1968	26, 427
1972	33, 895
1977 (Projected)	45, 500

The largest percentage increase was in the postsecondary field with 201 percent. This is due to doubling the number of area vocational technical schools providing vocational education (from three to six) and expanding the programs offered and the facilities.

Secondary enrollment, including all programs, increased 101 percent with 11,382 more students being served in 1972. These increases were across the board, but were very heavy in office occupations due to their not being included in the State enrollment figures prior to 1964 (except for a few co-op programs).

PUBLIC LAW 90–576 "PART B"

a. Job Training Enrollments

The accompanying chart, page 2, shows increases from fiscal year 1963 to fiscal year 1972 of 172 percent for secondary students served, 197 percent for postsecondary students served, and 58 percent for adults served by part B. of the act. Projections to fiscal year 1977 show a further increase of 42 percent for secondary, 71 percent for postsecondary, and 38 percent for adults, over fiscal year 1972.

b. General Descriptions

Growth has been especially large in the office occupations as ongoing programs were made eligible for vocational education funding and new programs were started. Health occupations programs were started at the secondary level using "B" funds.

Additional program offerings initiated since 1963 include food service, general industrial mechanics, drafting, welding, and auto body repair at the secondary level; and farm diesel and hydraulics, forestry aide, operating room technician, respiratory therapy technology, law enforcement, millwright, consumer applicance repair and nuclear technology at the postsecondary level. There programs were developed to meet employment needs due to expanding technology.

VOCATIONAL EDUCATION ENROLLMENT (PART B GAINFUL EMPLOYMENT)

	1963			1968			1972			1977		
	Secondary	Post-secondary	Adult	Secondary	Post-secondary	Adult	Secondary	Post-secondary	Adult	Secondary	Post-secondary	Adult
Agriculture education	3, 770	0	451	4, 051	85	572	4, 667	215	454	5, 200	350	450
Distributive education	109	0	375	616	130	223	990	223	58	1, 900	400	200
Health occupations	0	334	235	0	356	184	43	437	1, 081	300	550	1, 150
Home economics (gainful)[1]	0	0	0	0	57	0	38	178	155	100	800	100
Office occupations	22	91	252	3, 100	128	726	4, 206	400	962	6, 500	1, 000	1, 000
Trade and industry	232	656	2, 345	879	1, 144	2, 749	1, 288	1, 756	3, 067	2, 000	2, 400	5, 100
Total	4, 133	1, 081	3, 658	8, 646	1, 900	4, 454	11, 232	3, 209	5, 777	16, 000	5, 500	8, 000

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[1] Does not include Part F.

c. Postsecondary Courses

Postsecondary enrollment has shown a 197 percent increase from fiscal year 1963 to fiscal year 1972. Much of this increase has come from doubling the number of area vocational schools to six. This has resulted in a postsecondary vocational school within commuting distance of over 90 percent of Idaho's population. An equally large growth was due to expanding and diversifying the course offerings available to meet the needs of business and industry. This expansion has been in all vocational divisions. This growth is expected to continue.

AREA VOCATIONAL-TECHNICAL SCHOOL ENROLLMENTS

School location	Postsecondary programs			
	1963	1968	1972	1977
Boise State College, Boise	135	378	680	1,150
College of Southern Idaho, Twin Falls	0	225	398	1,000
Eastern Idaho Vocational School, Idaho Falls	0	0	168	500
Idaho State University, Pocatello	521	780	1,263	1,800
North Idaho College, Coeur d'Alene	74	195	209	350
Lewis-Clark State College, Lewiston	0	128	366	450
Other	351	194	170	250
Total	1,081	1,900	3,253	5,500

d. Disadvantaged Students

Nine hundred and five disadvantaged people were served in 19 special needs vocational programs during fiscal year 1972. In fiscal year 1963 no programs operated specifically for special needs students. One program operated during fiscal year 1968 serving 19 disadvantaged students. Most of the programs emphasized exploratory prevocational offerings or provided special help to allow students to overcome their deficiencies and succeed in a regular program of vocational instruction. The others were group occupational programs for disadvantaged students.

e. Handicapped Students

One hundred and eighty-seven handicapped people were served in eight special needs vocational programs during fiscal year 1972. No programs operated specifically for handicapped students during fiscal year 1963 or 1968. Most of these programs emphasized work sampling stations and independent living skills.

f. Adults

Most of the enrollment listed in adult programs is supplemental. These students are usually employed and seeking special training to upgrade their skills. Of the 5,777 listed in adult programs in fiscal year 1972, 5,067 were in supplemental training. Manpower programs enrolled an additional 1,089 during the 1970–72 biennium.

g. Financing

Postsecondary programs are funded 100 percent of the costs as identified in budgets approved by the State board for vocational education and through appropriation by the State legislature. Manpower needs, job opportunities, vocational education needs are considered in the approval of programs.

Secondary, regular part B, programs are funded on a formula basis which weighs the manpower needs, job opportunities, vocational education needs, relative ability to pay, and excess costs factors as specified in the 1968 amendments and in addition weighs the quality of the program. Pages 97a to 97d from our State plan, part I, appendix L, illustrate the formula for the distribution of funds to the secondary schools for vocational programs conducted under part B of the 1966 act.

Programs operated under section 102b, section 122a (4) A and B, parts C, D, and G are funded up to 100 percent depending upon the schools ability to contribute

h. Construction and Equipment

The $6 million of State permanent building funds expended from fiscal year 1964–72 for Idaho vocational education projects have brought five of the six area vocational-technical schools up to an acceptable minimum level. Approximately $13 million have been projected as needed during the fiscal year 1972–77 period to continue to meet the needs of the students and of business and industry.

1964–68	$736, 000
1969–72	5, 390, 000
1973–77 (projected)	13, 000, 000

OTHER FEDERAL PROGRAMS (PUBLIC LAW 90–576)

a. Exemplary Programs and Projects

There were eight programs conducted serving 443 persons in fiscal year 1972 with a projection of 650 persons to be served in 1977.

The development of exemplary programs was primarily for employment orientation, job information, guidance, and work experience. Results of these programs are presently being evaluated and disseminated to other schools in the state.

b. Residential Vocational Education

No residential centers are currently in operation. The need for such centers is very apparent for individuals from sparsely populated areas of the state. At least three centers could be made use of.

c. Consumer Homemaking and Occupational Home Economics

Programs in consumer homemaking are continuing to be stressed in designated depressed areas and areas of high unemployment. Of special interest is a part F–funded consumer homemaking mobile laboratory operated for a five-county area in northern Idaho which has been effective in conducting classes for low-income families.

ENROLLMENTS

	1963 Vocational home Economics	1968, home economics		1972						1977 (projected)	
				Part F—Consumer home making			Part B—Occupational home economics				
		Useful	Gainful	Total	Disability	Handicapped	Total	Disability	Handicapped	Part F	Part B
Secondary	7, 133	9, 853	0	10, 730	([1])	([1])	38	9	0	13, 000	100
Adult	413	654	57	1, 767	733	11	333	0	0	2, 000	900
Totals	7, 546	10, 507	57	12, 497	733	11	371	9	090	15, 000	1, 000

[1] Not available.

d. Cooperative Programs

Cooperative programs, part G only, were conducted to serve 518 individuals in 1972, with 1,000 projected for 1977. The development of cooperative programs has been primarily in office, distributive, and multioccupational fields. Emphasis is also being placed on developing cooperative programs in other occupational fields, such as: agriculture, home economics, and trades and industry.

e. Work Study Programs

Students served through work study include: 119 in 1968; 163 in 1972; and 300 projected in 1977.

The financial assistance provided through this program has been a great service to Idaho youth from low-income families, and has been an aid in allowing them to continue their education. Additional need is indicated if there is adequate funding with sufficient lead time to guarantee financial assistance when it is most needed.

f. Research and Training

Part C funds for research were of value in the development of instructional materials primarily in health and office occupations fields, and the dissemination of materials from pilot and exemplary programs.

The accomplishment of research objectives has been limited because of lack of personnel specifically assigned to research responsibility.

Following is a brief summary of a research project conducted in the state:

> The program, Orientation to Health Occupations and Nurse's Aide and Orderly Training, provided for an orientation to the roles of health workers and a knowledge of the broad opportunities available in the health field. With this experience and knowledge, the high school student was better prepared to select the program most in keeping with his interests, abilities, and occupational objectives.
>
> The program also prepared each student for certification as a nurse's aide or hospital orderly, providing them with employability upon completion of the course and graduation from high school.
>
> There were 17 girls entered and 16 completed the first year's training program.
>
> The program was very successful and will serve as a model for expansion of similar health occupations programs in the high schools throughout the State.
>
> The program received the Certificate of Merit Award for June 1971, from region X of the Department of Health, Education, and Welfare, Bureau of Adult Vocational and Technical Education.

STATE ADVISORY COUNCIL

The State Advisory Council continues to make valuable contributions to vocational education, primarily in the areas of public relations and evaluation of programs, which has aided in the improvement of vocational education.

Council recommendations for funding, staffing, and support of career education concepts have been implemented to the extent financial limitations would allow.

SUMMARY AND RECOMMENDATIONS

Progress of vocational education in the State has been shown in the increased enrollments from 16,926 in 1963 to 33,415 in 1972, as well as improvement in facilities and quality of programs.

Recommendations

That education, and training components of manpower programs, should be the role of educators;

That education authority and activity not be diffused to noneducational agencies;

That vocational education be categorically funded and given consideration commensurate with the needs for vocational education;

That advance funding be adopted to provide for sound program planning and operation; and

That career information be a part of and incorporated in all elementary and secondary education.

Comment

We do not feel that vocational education would fare very well or even continue to exist as a bona fide and recognizable vocational training program if funding were to come from the revenue sharing bill.

ILLINOIS

State Director—Sherwood Dees

INTRODUCTION

The growth of vocational education in Illinois is due to two major influences, the ways and means provided by Federal legislation and the commitment of the State board of vocational education and rehabilitation to embark in new directions to better serve the occupational education needs of youth and adults.

The Vocational Education Act of 1963, provided additional funds and permitted the use of funds for new and different vocational education programs and activities. In Illinois during the 5-year period under this act, a system of secondary area vocational centers was established and the administrative structure of the division of vocational and technical education was altered to facilitate the implementation of area center programs, programs for students with special needs, guidance, research, vocational work-study, and postsecondary programs. The growth of postsecondary vocational and technical education during this period was enhanced considerably by the establishment of an Illinois system of public junior colleges.

Concurrent with the enactment of the 1968 Vocational Education Amendments, the division of vocational and technical education was completely reorganized and pursued bold new directions in order that the citizens of the State might derive full benefits of the new legislation. Significant and far reaching changes have occured in approval, evaluation, and provisions for funding local educational agency programs of vocational and technical education. Utilizing Federal, State, and local funds, an articulated program of career education, kindergarten through adult, is becoming a reality in many Illinois communities.

The enrollment data listed below indicates the extensive growth of vocational education in Illinois during the 10 years since 1963. The enrollment level achieved after the more than 40 years of federally funded vocational education prior to 1963, was increased almost 10-fold between 1963 and 1972. Continued commitment to vocational and technical education at the Federal, State, and local levels should result in an increasing proportion of youth and adults in Illinois enrolled in these programs.

Total enrollment in vocational education:

1963	[illegible],692
1968	137,605
1972	567,307
1977 (estimated)	753,700

PUBLIC LAW 90-576 "PART B—STATE VOCATIONAL EDUCATIONAL PROGRAMS"

a. Job Training Enrollments

Occupational area	Secondary	Postsecondary	Adult	Total
1963:				
Agriculture	15,567		10,605	26,172
Distribution	1,955		2,554	4,509
Technical		1,214	868	2,082
Trade and industry	15,770		16,159	3 ,929
Total	33,292	1,214	30,186	6 ,692
1963:				
Agriculture	17,517	748	6,080	24,345
Distribution and marketing	6,209	1,058	367	7,634
Health	1,142	3,474	853	5,469
Home economics	2,186	1,070	576	3,832
Office occupations	25,581	10,126	8,300	44,010
Technical	0	5,068	3,765	8,833
Trades and industrial	20,769	1,565	21,148	43,482
Total	73,407	23,109	41,089	137,605
1972:				
Agriculture	24,032	2,822	3,481	30,335
Distribution	18,051	4,769	988	23,808
Health	5,348	10,470	1,864	17,682
Home economics	44,973	3,265	931	49,169
Office occupations	189,167	33,313	4,823	230,303
Technical	0	12,119	1,129	13,248
Trades and industry	170,175	19,167	13,420	202,762
Total	451,746	88,925	26,636	567,307
1977 (estimated):				
Agriculture	29,000	5,600	3,400	38,000
Distribution	20,800	6,300	900	28,000
Health	8,000	21,000	1,800	30,800
Home economics	75,000	6,300	900	82,200
Office occupations	192,000	55,400	4,800	252,200
Technical	0	17,500	1,000	18,500
Trades and industry	254,000	37,000	13,000	304,800
Total	578,800	149,100	25,800	753,700

b. General Description

The significant changes in enrollment between 1963 and 1968 are influenced by development of health occupations programs, permission to use Federal funds for office occupations, restricting Federal funds to home economics programs preparing persons for gainful employment, and the general growth of postsecondary education resulting from the newly created State system of junior colleges.

The rate of growth in enrollment during the period 1968–72 is unduplicated for any 5-year period in the history of vocational education in Illinois. The growth reflects the impact of Public Law 90-576 and changes made in the administration of the Illinois program. Also, increase in number of public junior colleges, secondary, and vocational centers, and joint agreements between local educational agencies has had significant affect upon growth in enrollment. It should be noted that much of adult education formerly conducted by secondary school districts has become a part of the junior college program and is now reported as postsecondary. This is a major factor affecting the declining reported enrollment at the adult level. Priority has been given to initiating and expanding programs in the health occupations. Associate degree nursing programs and programs for practical nursing, nurses assistants, and health care aides account for most of the enrollment in health occupations. Personal and public service occupations include significant numbers of persons prepared for jobs as child care aides, employment in the commercial food industry, cosmetology, and in the area of police science. Programs are being conducted in such new occupational areas as environmental control, air pollution control, and water and waste water control.

c. Post-Secondary Courses

In 1963 the only funds utilized for postsecondary occupational programs in Illinois were Federal funds provided under title VIII of the National Defense Education Act. Twenty-eight preparatory curricula emphasizing engineering and industrial technologies were conducted in 18 school centers. Other than the Institute of Aviation, University of Illinois, and Vocational-Technical Institute, Southern Illinois University, all postsecondary programs were located in secondary schools or junior colleges operated by local public school districts.

Implementation of the Illinois Public Junior College Act began on September 6, 1965. The act mandated that at least 15 percent of the curricla in the junior colleges be in vocational and technical education. By 1968, 34 junior colleges were organized and 26 were conducting vocational and technical education programs in 51 different OE-coded occupational areas.

In 1972, students were enrolled in 104 different OE-coded occupational programs conducted on 46 junior college campuses in Illinois. Approximately 47 percent of all students enrolled in public junior colleges were enrolled in vocational and technical education programs.

The following postsecondary enrollments in occupational programs show the growth at this level over the past 10-year period.

Institutions [1]	1963	1968	1972
Junior colleges	312	17,886	84,873
Technical institutes	210	3,011	4,052
Secondary schools	692	2,212	0
Total	1,214	23,109	88,925

[1] Area vocational centers in Illinois are operated at the secondary school level.

d. Disadvantaged Students

Enrollment data recorded for 1963 does not include identification of disadvantaged persons.

The term, "persons with special needs" that appeared in the 1963 Vocational Education Act was used in 1968 to identify both disadvantaged and handicapped persons enrolled in occupational programs. Experimental and pilot occupational programs for persons with special needs preceded the initiation of operational programs in 1968. The operational programs included the in-school, sheltered workshop type of activity and a special approach to cooperative occupational education.

The special cooperative programs labeled "Cooperative Work Training" (CWT) presented local educational agencies with a way to provide occupational preparation for disadvantaged and handicapped youth who were not being served in regular programs. This program for students with special needs precipitated interagency cooperation between the division of vocational and technical education and State agencies for special education and vocational rehabilitation so that funds and services of all three agencies were fully utilized by the local school districts.

In the initial year for CWT, 1968, 57 programs were conducted and 3,129 students were enrolled. This special cooperative education program has proven to be one of the most effective means of preparing disadvantaged and handicapped youth for employment.

1972 marked the third year for the division of vocational and technical education emphasis and support of occupational education for disadvantaged persons enrolled in regular occupational programs in local educational agencies. Criteria for identification of such persons and a description of special services provided to compensate for disadvantages while enrolled in regular occupational programs has been a part of the local one and 5-year plan for vocational education. The cost of compensatory services provided locally for disadvantaged persons in approved occupational programs provided locally for disadvantaged persons in approved occupational programs have been supported in part by Federal funds dispersed by the division of vocational and technical education as an add-on to a base rate of funding per student credit, credit hour, or contact hour. Implementation of this system serves to: (1) Enhance the integration of disadvantaged persons into regular programs in contrast to segregating them into special groups, (2) provide financial support in the rural as well as the urban areas, and (3) promote identifying and serving disadvantaged persons rather than disadvantaged groups.

DISADVANTAGED PERSONS ENROLLED IN OCCUPATIONAL PROGRAMS SUPPORTED UNDER PART B

Occupational areas	1968[1]	1972	1977[2]
Agriculture	175	2,584	3,600
Distribution	1,845	3,120	4,400
Health	250	4,250	6,000
Home economics	101	3,934	5,600
Office occupations	834	18,450	26,000
Technical		2,238	3,000
Trades and industry	7,639	21,562	30,300
Total	10,844	56,148	78,900

[1] Estimated due to both disadvantaged and handicapped persons reported as students with special needs.
[2] projected.

Part of the funds allotted to Illinois under section 102(b) of the 1968 Vocational Education Amendments were used to support new occupational programs for 2,846 disadvantaged persons in institutions operated by the Illinois Department of Corrections.

e. Handicapped Students

The conditions described regarding occupational education for disadvantaged students in Illinois in 1963, 1968, 1972 were the same for handicapped persons. In 1963 the enrollment reports did not include identification of handicapped persons. In 1968 both disadvantaged and handicapped students enrolled in occupational programs were identified as students with special needs. The ways and means of supporting occupational education for handicapped persons in 1972, is the same as described for disadvantaged persons.

Part B funds were used in 1972 to support new occupational programs for 540 handicapped persons in institutions operated by the Illinois Department of Mental Health and the Department of Children and Family Services.

HANDICAPPED PERSONS ENROLLED IN OCCUPATIONAL PROGRAMS SUPPORTED UNDER PART B

Occupational areas	1968[1]	1972	1977[2]
Agriculture	33	507	1,000
Distribution	252	423	900
Health	19	320	700
Home economics	29	1,097	2,200
Office occupations	114	2,467	5,200
Technical		235	500
Trades and industry	1,348	3,772	7,000
Total	1,795	8,821	17,500

[1] Estimated due to both disadvantaged and handicapped persons reported as students with special needs.
[2] Projected.

The policies and procedures followed in administering the State program of occupational education for handicapped persons has alerted practically every local public educational agency in Illinois to the current needs of these persons. An increasing number of handicapped persons are being integrated into regular occupational programs and accountability for rendering supportive services is being accepted by the local educational agencies. The public junior colleges operating as community service agencies are the greatest potential source of expanding occupational education opportunities for handicapped persons.

f. Adults

Adult programs of occupational education in the years prior to the establishment of the Illinois system of public junior colleges were conducted by the local public school districts. When junior college facilities became available it quite naturally followed that the adult occupational education programs became their province. Many of the adult programs became identified as post-secondary. This transition has been stimulated in part by funding policies of the State Board and the Illinois Junior College Board.

Although enrollment data may indicate otherwise, recognizing the reasons mentioned above the participation of adults in occupational education programs has probably increased significantly in the past 10 years.

	1963	1968	1972	1977
Preparatory	10,152	8,048	14,620	14,300
Regular	34,803	33,041	12,016	11,500
Total	44,955	41,089	26,636	25,800
MDTAs	3,987	7,017	6,288	8,000

The identification of adults as employed or unemployed has not been included in the enrollment data collected from local educational agencies.

g. Financing

(i) *Allocation of Part B Funds by Formula*

In fiscal year 1972 funds were allocated to local educational agencies based on the number of credits or contact hours earned by students who were enrolled in approved vocational-technical programs. This base amount was determined for each level of education (elementary, secondary, postsecondary, and adult) by the State board of vocational education and rehabilitation. Secondary and postsecondary vocational-technical education credit programs were reimbursed per unit of credit. Adult noncredit programs were reimbursed on student contact hours. Elementary occupational information programs were reimbursed per student enrolled, utilizing state funds only.

As mandated by the act, criteria used in distributing funds to all eligible school districts gave priorities to programs of high manpower needs. In addition, criteria used considered relative ability to pay and differential costs of the vocational education program. Claims were computed using the basic claim plan's weighted factors when applicable.

Basic Claim

The basic claim was computed by multiplying the number of student units of credit or contact hours as applicable for students enrolled in approved courses by the base amount set by the State board.

Additional Factors

Factor I: Each local educational agency offers an approved vocational-technical program qualified for factor I in relation to their relative wealth. Relative wealth was determined in public schools by comparing assessed valuation (tax base) per pupil. In junior college districts comparison of assessed valuation per full time equivalent (FTE) was used in assigning the relative ability factor sliding scale from 0 to 80 percent. This factor product was added to the base amount to more nearly equalize educational opportunities and became the adjusted basic amount.

Factor II—Provisions for educating disadvantaged students: If special provisions were made in the local districts plan to provide vocational education for disadvantaged persons, additional reimbursement was claimed. Of the base amount figure 30 percent was added for disadvantaged students enrolled.

Factor III—Special organization: Special organization was defined as approved area vocational centers or cooperative joint agreements between school districts. Of the base amount 30 percent was added as reimbursement for students enrolled in programs which were designed to serve students from two or more school districts.

Factor IV—Initial programs: Initial programs are defined as programs offered for the first time in an educational institution. An additional 30 percent of the base amount was funded for the number of students enrolled in the initial programs. These additional funds were used to encourage schools to expand their occupational offerings and to help defray the costs of implementing new programs.

Factor V—Programs for handicapped: An additional 50 percent of the basic amount was added to the reimbursement claim for handicapped persons if a school provided programs and services for handicapped persons. This amount was computed on the number of student units earned by such persons.

Summary of Funding by Formula

Base amount by category and factor was designated by the State board.

Factor II through V, where applicable, was computed as a percent of the base amount and none were cumulative.

Total funding to a local educational agency was the sum of the above funding factors and the basic claim.

Manpower Priorities

The need to encourage local programs of training which prepared individuals for employment in occupations having high manpower priorities was acknowledged by the Illinois State Board of Vocational Education and Rehabilitation.

To provide encouragement to local educational agencies, levels of program funding were established by the State board. The levels were dependent upon the manpower priority of the program as well as the programs' cost differential. Manpower priorities were set in cooperation with the Illinois State Employment Service. Cost differentials were determined by division staff from studies and local records.

Programs having highest priority in terms of manpower needs and cost differentials were funded at 100 percent of base; programs of above average priority received 60 percent of base; programs of average priority received 30 percent of base; and programs having low priority were not funded.

(ii) The population of Chicago reported in the 1970 census was 3,366,957 or 30.3% of the 11,113,976 population reported for the State of Illinois. Chicago is the only Illinois city with a reported population of more than 250,000.

In 1972, Chicago received $2,330,580 from part B funds and $3,669,000 from State funds for a total of $5,999,580. This total amount received by Chicago was 19.6% of the combined part B and State funds available for distribution in Illinois that year. In 1972, part B funds totaled $16,32[illegible],716 and State funds for distribution to schools was $14,245,500 for [illegible] grand total of $30,571,216.

As already indicated, the Illinois method of funding occupational education is directly related to student enrollment in approved programs. This system was adopted in 1970 and generated additional programs and higher enrollment in most school districts and junior colleges. Implementing new programs and making curriculum changes have been accomplished rather rapidly in local educational agencies throughout the State. However, this has not been true in Chicago and the increase in enrollment in occupational programs has not kept pace with the other school districts and junior colleges. An excellent working relationship prevails between staff of the division of vocational and technical education and vocational education administrators in the Chicago Board of Education and City Colleges of Chicago. Concerted efforts are being made to expedite the improvement and expansion of the total program of occupational education in Chicago. The existing disparity should be narrowed significantly in the next 5 years.

Eight Illinois counties, Alexander, Brown, Gallatin, Hamilton, Johnson, Pope, Pulaski, and Saline have been identified as having 50 percent or more of the households in the county with less than $5,000 annual cash income. According to the 1970 census, the combined population of these counties is 79,553 or 0.7 percent ~~of the~~ 11,113,976 reported for the entire State.

In 1972, the eight counties combined received $79,565 in part B funds and $124,446 in State funds for a grand total of $204,011. This grand total is 0.7 percent of $30,571,216 in part B and State funds used for distribution to local school districts in Illinois in 1972.

There is no disparity between population and Federal and State expenditures in the poorest rural areas in Illinois.

h. Construction and Equipment

Source	1963-68		1969-72		1973-77	
	Construction	Equipment	Construction	Equipment	Construction	Equipment
Federal	$1, 754, 715	$3, 678, 869	$7, 537, 580	$7, 834, 860	0	$17, 355, 000
State	0	0	0	0	$35, 687, 500	0
Local	1, 754, 715	2, 226, 688	7, 537, 580	7, 292, 319	24, 500, 000	14, 905, 000
Total	3, 509, 430	5, 954, 557	15, 075, 160	15, 127, 179	60, 187, 500	32, 260, 000

From 1963 to 1972, the emergence of area secondary vocational centers and the State system of public junior colleges generated funding needs for construction and equipment.

In both the area vocational centers and the junior colleges, Federal funds have been used to pay for equipment necessary for the approved vocational and technical education programs. Local funds but no State funds appropriated for the State board have been used for this purpose.

In 1972 State funds were appropriated for construction of area secondary vocational centers. Up until that time Federal funds were used for that purpose. No Federal funds have been used for construction at the junior college level. The State funds for construction in area secondary vocational centers are administered by the capital development board. After educational specifications for a proposed area center are approved by the State board of vocational education and rehabilitation the capital development board works with the local administrators to translate the educational specifications into building specifications and plans. Prior to release of funds by the capital development board the State board of vocational education and rehabilitation reviews and concurs with the construction plan and budget jointly developed by the local school administrators and the capital development board.

The State appropriations for construction will enable the State board to devote additional Federal funds to supporting costs of equipment. The Federal funds have been a virtual necessity in the development of the area secondary vocational centers. Local school districts cannot by themselves cope with the financial burden even though need and desire for occupational education is present.

Federal funds used for equipment in junior college occupational programs has stimulated development of programs that probably would have been delayed because of competition for funds available to the junior colleges from other sources.

For the next few years, Federal and State funds for equipment and construction are critical in meeting the need for new and expanding programs at both the secondary and postsecondary levels.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

The exemplary activities funded by the Division of Vocational and Technical Education are based on results of successful research and developmental projects. Many new innovative and relevant programs have been designed and implemented to meet the education needs of youth and adults in Illinois.

Exemplary moneys have been used extensively to establish demonstration centers which highlight operational programs, exemplify new concepts in occupational education or new approaches to problem areas in occupational education. Teachers, administrators, and parents have had the opportunity through a variety of different demonstration centers to become better informed about new approaches to problem areas in operational education.

In 1968 funds were not appropriated specifically for exemplary activities and projects were not so identified. In 1972, the exemplary projects funded by the State Board directly involved approximately 2,320 students and 1,500 teachers and school administrators. It is anticipated that new and innovative programs and activities in occupational education will continue to occur in increasing numbers and projections for 1977 indicate that approximately 3,500 students and 1,555 teachers and school administrators will be directly involved.

A variety of exemplary projects were conducted in 1972.

Air frame-power mechanics program, Cahokia District No. 187, Cahokia, Ill. This is a cooperative program between Cahokia High School and Parks Air College that serves 20 dropout prone youngsters in an aviation power mechanics program. The program is designed to enhance the future employment opportunities of young men in various job classifications found in the aerospace industry.

Aviation mechanics program, East St. Louis District No. 189, East St. Louis, Ill. This program is designed to give 20 disadvantaged young men an opportunity to acquire the knowledge and skills required for employment at the beginning level of various jobs in aviation mechanics. The program is conducted cooperatively by East St. Louis District No. 189 and Belleville Junior College. This activity has been formally adopted as a regular part of the school curriculum by the East St. Louis Board of Education.

Industrial engineering technology based on integrated measurably stated behavioral objectives, Moraine Valley Community College, Palos Hills, Ill. This activity is designed to completely individualize industrial engineering technology for 25 students at the community college level. The students involved in the project enjoy the self-paced style and educators throughout the country are looking at this program as an effective means of meeting the needs of occupational education. Special provisions are made for the disadvantaged student.

LPN–RN program, Olive-Harvey Junior College, Chicago, Ill. This program was designed to allow 20 students to transfer credits from the licensed practical nurse to the associate degree nurses program and to utilize some of the credits obtained in the LPN program toward the registered nurse program. Students in this program passed the licensing examination for RN with honors. Not only did this project attempt to determine if challenging examinations could be used to identify what duplication existed in the LPN and RN programs, but it also attempted to determine if present entrance tests are valid predictors of success. The effect of this program was to shorten the time needed for becoming an RN after already being an LPN. Students completing the program in fiscal year 1972 scored an average of 20 points higher on the State board examination for licensing registered nurses than the national norm.

Project Joliet, Joliet Public Schools. Three conferences scheduled, 100 teachers and administrators attended. The overall goal of Project J.O.L.I.E.T. (Job Orientation Linking Industry and Education for Today) was to motivate students toward the World of Work in education programs by reaching out into the community. This demonstration center conducted drive-in conferences for teachers, administrators, and parents interested in establishing an occupational information program at the elementary school level.

Preparedness program, Parkland Junior College, Champion, Ill. Two-day workshop scheduled, a postsecondary program for disadvantaged students, 125 teachers and administrators attended. The preparedness program was conducted by Troy Simpson of Parkland College to provide developmental education to students in Junior College District No. 505. This educational experiment was designed to encourage, recruit and motivate disadvantaged students who were unlikely to actively explore and pursue an educational program for themselves within the existing educational structures.

Computerized Vocational Information System, (CVIS), Willowbrook High School. Individual and workshop visitations scheduled on request, 250 teachers and administrators attended, 2,200 students participated on use of the system. Project CVIS serves as an illustration of the kind of innovation which can be developed and implemented when local enthusiasm and resources converge with government funds. Its primary objective was the development of a highly sophisticated computer based system to assist students in exploring occupations in order to make an intelligent decision regarding their occupational choice. The CVIS project has now spread to 10 sites in Illinois, 15 other States, and 2 foreign countries. Fifty-one sites are involved in implementation of the project.

Seven demonstration centers were funded during the 1971–72 school year.

A comprehensive home economics program, Lyons Township High School, La Grange, Ill. Five conferences scheduled, 300 teachers and administrators attended. This project provided an opportunity for the exchange of ideas among schools in an area where both gainful and useful home economics was taught. Teachers, Administrators, and college students were provided an opportunity to observe a comprehensive home economics program in action and to share the resource materials, curriculum innovations, and examples of community and students' vocational needs and aspirations.

A System for Individualizing Vocational Education, (SIVE), Niles Township High School, Skokie, Ill. Four conferences scheduled, an indiviualized instructional program for vocational students, 60 teachers and administrators attended. The primary purpose of SIVE was to develop a system to individualize instruction for students in vocational courses in the industrial arts, home economics, and business education departments as well as in cooperative vocational education. The purpose of this demonstration center was to provide workshops which demonstrated the system to teachers in Illinois, and to teach them how to use the system in their own subject areas.

Vocational information project, Thornton Area Public School Association. One major conference, individual visitations, 50 teachers and administrators attended. This project was conducted to disseminate information regarding the importance and uses for career information in grades K–8, local resources for securing career information, and the usefulness of television as a medium for communicating career information to interested individuals. Assistance was made available through the demonstration center in establishing career information programs as well as the local production of video tapes.

Horticultural instructional packages, Four demonstration center sites open for individual visitation, Rochelle, Alton, Skokie, Naperville, 600 teachers and administrators attended. These four demonstration centers were designed to show teachers and administrators how they could develop and implement a horticultural program at the elementary and secondary level.

b. Residential Vocational Education

The extensive system of public junior colleges and the growing number of area secondary vocational centers have done much to alleviate the need for residential vocational schools in Illinois. When these two types of institutions have arrived at optimum operating potential, an assessment of need for residential vocational schools should be researched and considered.

c. Consumer and Homemaking

The part F funds allotted for the purpose of implementing consumer and homemaking education have been used to support local educational programs in only those communities which are economically depressed or have high rates of unemployment.

A contractual agreement between the local educational agency and the State Board is the medium for approving programs and obligating funds. An approvable program at the secondary, post-secondary, or adult level includes consumer education as an integral part of the instruction, relates to the dual role assumed by persons as homemakers and wage earners and provides experiences related to the economic needs of the enrollees.

In 1972 programs were funded for 27 secondary schools in Chicago and 121 secondary schools elsewhere in the State.

In 1972, under contractual agreement with the State board, the Cooperative Extension Service—University of Illinois, conducted a consumer and homemaking program for low-income families in six Illinois counties. The professional staff of the Cooperative Extension Service trained paraprofessionals recruited from the six counties to conduct the instructional program in the homes of the low income families. In a typical month, a staff of 24 paraprofessionals provided instruction for 783 families.

Part F funds have been used for teacher education programs, curriculum and instructional materials development, demonstration programs, and program evaluation projects.

Programs of consumer and homemaking education were not so identified or reported in 1963 and 1968. The special programs under part F began in 1970. Although all secondary programs are in economically depressed or high unemployment areas of the State, individuals have not been reported as disadvantaged or handicapped. All adults in the program are economically disadvantaged. However, data has not been solicited as to whether or not the adults were mentally or physically handicapped.

Using part F funds for special programs and projects as opposed to commingling the funds with moneys for general distribution for home economics programs has helped to focus on the target groups to be served and to generate a quality program.

CONSUMER HOMEMAKING AND OCCUPATICNAL HOME ECONOMICS ENROLLMENTS

	1962–63 (fiscal year 1963)	1967–68 (fiscal year 1968)		1971–72 (fiscal year 1972)				1976–77 (fiscal year 1977) (Projected)	
	Vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Part F—consumer homemaking	Part B—Occupational home economics			Part F—Consumer homemaking	Part B—Occupational home economics
					Total	Disadvantaged	Handicapped		
Secondary	39, 589	63, 327	2, 186	8, 880	44, 973	3, 580	998	17, 800	75, 000
Postsecondary	0	0	1, 070	0	3, 265	236	66	1, 200	6, 300
Adult	14, 769	58	576	1, 900	931	118	33	12, 000	900
Total	54, 358	63, 385	3, 832	10, 780	49, 169	3, 934	1, 097	31, 000	82, 200

d. Cooperative Vocational Education

Over the past 35 years in Illinois, cooperative vocational education has proven to be one of the most successful methods of preparing youth for employment. The program is functioning in schools of all sizes in both the urban and rural areas of the State. Students of employable age are receiving on-the-job training in a wide variety of occupations.

Although the traditional cooperative programs such as distributive education, diversified occupations, and others, may be found in many high schools in the State, a concerted effort has been made to assist schools to find new and different ways to serve more students who can benefit from this type of program. In 1967 an interrelated or multi-occupational cooperative program was devised for the small rural school. In 1968 the cooperative work training program was initiated for students with special needs, primarily for students who were of employable age and were potential school dropouts.

Part G funds have been used in Illinois to initiate new cooperative education programs in schools with a dropout rate above State average and located in an area of high youth unemployment.

In 1971 Illinois joined with several other States to cooperate with the U.S. Department of Labor, Employment Standards Division, in an experimental work experience and career exploration program. WECEP was established to test the potential of cooperative education and career exploration as activities to help dropout prone 14- and 15-year-old youth to become oriented and motivated toward occupational education and to begin preparation for the world of work. In 1972, 31 local school districts were conducting the experimental work experience and career exploration programs.

In 1972 seven school districts were conducting pilot programs of cooperative education for youth who had left school prior to graduation. Job related instruction, academic instruction, and guidance services were provided in a facility away from the secondary school campus. Individualized instruction and supervised on-the-job training enabled the students to earn a high school diploma or its equivalent and find employment in jobs related to their interests and abilities.

A cooperative education program for physically handicapped youth was initiated at Spalding High School in Chicago. Part G funds were used at Northern Illinois University to conduct a cooperative education program for speech and hearing impaired high school youth.

All part G funded programs and activities have been executed through the use of contractural agreements. The quality of programs has been upgraded by the development of special curriculum materials and professional development activities provided for local teacher-coordinators of the special programs.

ENROLLMENT DATA

	1963	1968	1972	1977
Part B	3,036	16,390	34,932	52,500
Part G			1,144	2,500
Total	3,036	16,390	36,076	55,000

e. Work Study Programs

The value of the work-study program for students, the school, and the local community has repeatedly been expressed by local school administrators. The program not only provides financial assistance for needy students, but more significantly, the financial assistance is in the form of wages for meaningful work. Students working for public supported agencies have helped to improve the quantity and quality of services these agencies provide for the local community. Under the supervision of school personnel the students have an opportunity to learn how to work, many developing job skills, which contributes to their future employability. The program has an excellent record in Illinois.

Although work-study funds originated with the Vocational Education Act of 1963, it was 1965 before the funds reached the States and programs could be implemented. From 1965 until 1967 the State program was conducted during the school year and in the summer months. In 1968 funds were not appropriated until almost two-thirds of the school year had passed and the program was almost totally confined to the summer months. There was no appropriation for work study in 1969. Since 1970, the program has been conducted only during the summer months. Due to the numerous requests for work-study funds and the limited amount available, local school participation has been limited to those with a student dropout rate and a youth unemployment rate above the State average. However, there are needy and deserving students in practically every school and it is unfortunate that lack of funds does not permit implementing work study programs for them.

Number of students served:

1963	0
1968	2,615
1972	841
1977 (projected)	1,400

f. Research and Training

Programatic research and development activities sponsored under part C have influenced the continuing improvement of occupational education programs and practices for some time. Solutions have been defined and components of new programs produced and assembled to be made operational parts of the total vocational program. The idea has been to seek improved ways of serving the needs of students, educators, and members of the community.

Research activities have been conducted since 1965 in the areas of career education, environmental technology, management and manpower information, individualized instruction, and dropout programs just to mention a few. The flexibility helps in defining and implementing solutions to problems.

Part C funding is making occupational education more responsive to technological change. New programs must be developed that lead themselves to preparing individuals for differing job roles and new approaches for teaching established programs must be identified.

Listed below are two of the several important research projects supported with Part C funds.

Title: A Research and Development Project in Occupational Education: The Development of Process Models for Decision Making in Curriculum Development and Evaluation.
Principal Investigator(s): Joseph Borgen and Dwight Davis.
Institution: Joliet Junior College.
Location: Joliet, Illinois.

This project, better known as the Illinois Occupational Curriculum project, was conducted under the auspices of Joseph Borgen and Dwight Davis at Joliet Junior College. It represented a management systems approach to occupational curriculum development and evaluation in the process models were being developed for occupational education. A system package was developed through different research and development activities which contained management strategies, guidelines, and activity manuals to assist local occupational curriculum planners in the identification, development, implementation, and evaluation of occupational programs. These guidelines were utilized with a series of workshop sessions to orient curriculum planners to the utilization of the process models as well as to stimulate research on related problems. The response to the package by Illinois administrators has been overwhelming. Over 300 persons have attended workshops in fy 1972.

Title: Nuclear Radiation Project Study—Phase II
Principal Investigator(s): William Phelps and Arthur Baker
Institution: Community High School District #155.
Location: Crystal Lake, Illinois

A laboratory-oriented introductory one semester course in nuclear radiation for secondary students was developed. Attitude and knowledge changes were evaluated through the use of pre- and post-tests developed by the researchers. The trial classes were taught to a heterogeneous group of 16 students per semester. Preference was given to seniors with an interest in vocational technology.

The project developed and field-tested a course that could be taught in all secondary schools in the United States. Students enrolled in this program were not only trained for employment as nuclear technicians upon graduation, but also given sufficient background to pursue post-secondary technician training if so desired. This program also alleviated students' fear of nuclear energy by demonstrating its many uses in peaceful situations.

STATE ADVISORY COUNCIL

The State advisory council has met on a regular basis. In their meetings, reports from their special committees and individual member concerns have focused on the State program of vocational and technical education and the State administration of the program.

The advisory council has funded several research projects in an effort to evaluate various aspects of the State program. Their annual reports for FY 1970, 1971, and 1972 have included recommendations to the State Board. The State Board and the division of vocational and technical education have pursued and actively responded to recommendations that were within the parameters of the agency's fiscal resources and the prevailing statutory responsibilities and limitations.

SUMMARY AND RECOMMENDATIONS

The program of vocational education in Illinois took on new life and experienced significant growth when Federal Legislation for vocational education focused upon serving people and funds were appropriated to create and conduct the necessary programs and services for them. The increase in number of persons enrolled in the Illinois program between 1963 and 1972 is evidence of what can be accomplished when enabling statutory measures prevail and funds are made available. The record in Illinois could have been better and can be improved in the future if the following recommendations were implemented.

(*a*) Additional part B funds would help maintain a more realistic support level for the local educational agency programs. Federal and State funds for distribution to schools has not kept pace with the ever-increasing enrollment in local programs. Schools have responded to our encouragement to initiate and expand programs to serve more students. However, the local administrators have been dismayed when the level of Federal and State support per student continually decreases.

(*b*) The categorical programs authorized and funded under 90–576 have enabled Illinois to initiate program and activities and serve students in a very gratifying manner. However, as frequently happens in such categorical programs, there are instances when mandates for use of the special funds create gross inequities in the overall State program. It would be most helpful if under certain circumstances funds appropriated for categorical programs could be transferred to part B purposes.

(*c*) There is the ever present need for Federal appropriations for educational programs to occur in a more suitable sequence with the administrative calendar for schools throughout the Nation. The evolution of the school calendar from the traditional to the year-round operation is many years away for most schools. School administrators at the local and the State level need 6–12 months lead-time concerning notice of Federal appropriation for educational programs.

(*d*) It is essential that the Better Schools Act and the plan for revenue sharing include specific provisions and allocation of funds for vocational education. The consequence of the absence of these provisions would be chaos. The economic and social welfare of our nation is of real concern in this matter.

INDIANA

State Director—Don K. Gentry

INTRODUCTION

Vocational education is a part of the total education picture in Indiana. More than 154,000 persons in Indiana pursued some type of vocational training during fiscal year 1972—an increase of 84,586 students or 120% during the last 10 years (since fiscal year 1963). Enrollment for fiscal year 1977 is expected to top 202,000. Of the 154,556 persons served through vocational programs in 1971–72, 65.7% were secondary students, 4.9% were post-secondary, and 29.4% were adults.

To the 101,506 secondary vocational students, enrollment meant pursuing a regular high school curriculum leading to a high school diploma plus learning a valuable skill. Vocational education graduates may go directly into a skilled job, undertake advanced technical study, enter apprenticeship or pursue professional college training. To the 45,521 adults in vocational training, this can mean an open door to new occupations and new levels of achievement and attainment.

Some 320 public high schools offer vocational and technical education; area vocational centers a modern concept in education, are gradually covering Indiana.

The area vocational system in Indiana is well along in development. Hoosiers may now select from 33 area vocational centers, 23 of which have a central facility. Eleven areas have completed studies to determine the feasibility of offering vocational education on an area basis. High school students are enrolled in area schools from surrounding school districts to take courses not offered in their local schools. Program offerings are primarily those which are too expensive for a local school to offer or sophisticated courses which lack enrollment in local school districts. Secondary students attend the area school for one-half a day and attend their home high school the other one-half a day to complete the usual requirements for high school graduation.

The great increase that has come about in program development, area school development, and increased enrollments, is primarily due to the support given to our State under the 1968 Amendments to the 1963 Vocational Education Act.

VOCATIONAL EDUCATION ENROLLMENT IN INDIANA [1]

	Indiana	Percent change from 1963
Fiscal year:		
1963	69, 970	0
1968	94, 741	35
1972	154, 556	120
1977 [2]	202, 888	190

[1] 1967-72 annual-reports on vocational and technical education by HEW Office of Education. Includes enrollments in comprehensive consumer and homemaking programs.

[2] Projected.

a. Job Training Enrollments

The following data represents enrollments in vocational education programs provided with Federal funds under part B.

VOCATIONAL EDUCATION ENROLLMENTS BY AREA OF TRAINING

	1963	1968	1972	1977 [1]
	Secondary level			
Agri-business	11, 040	10, 664	15, 884	22, 175
Business and office	0	3, 387	15, 155	18, 779
Distributive	362	2, 593	4, 462	7, 570
Health occupations	0	426	967	1, 496
Occupational home economics	0	545	743	901
Technical	39	0	4	6
Trade and industry	3, 713	6, 769	12, 078	15, 916
Preemployment vocational education			1, 755	5, 710
Total	15, 154	24, 384	51, 044	72, 553
	Post-secondary level			
Agri-business	0	0	10	17
Business and office	0	692	2, 133	2, 646
Distributive	0	120	328	557
Health occupations	481	618	2, 325	3, 598
Occupational home economics	0	6	76	92
Technical	104	2, 352	505	721
Trade and industry	1, 248	2, 313	1, 824	2, 408
Pre-employment vocational education			196	637
Total	1, 833	6, 101	7, 397	10, 676
	Adult level			
Agri-business	6, 215	6, 405	8, 459	11, 808
Business and office	0	491	10, 228	12, 675
Distributive	1, 604	895	1, 914	3, 248
Health occupations	0	683	844	1, 308
Occupational home economics	0	178	2, 140	2, 595
Technical	1, 143	1, 743	1, 295	1, 848
Trade and industry	9, 127	12, 339	16, 295	21, 476
Preemployment vocational education	0	0	62	203
Totals	18, 089	22, 734	41, 237	55, 161

[1] Projected.

VOCATIONAL ENROLLMENT BY LEVEL OF TRAINING

	1963	1968	1972	1977 [1]
Secondary	15, 154	24, 384	51, 044	72, 553
Postsecondary	1, 833	6, 101	7, 397	10, 676
Adult	18, 089	22, 734	41, 237	55, 161
Totals	35, 076	53, 219	99, 678	138, 390

[1] Projected.

b. General Description

More than 154,000 persons in Indiana pursued some type of vocational training during fiscal year 1972—an increase of 84,586 students or 120 percent during the last 10 years (since fiscal year 1963). Enrollment for fiscal year 1977 is expected to top 202,000. Of the 154,556 persons served through vocational programs in 1971–72, 65.7 percent were secondary students, 4.9 percent were post secondary, and 29.4 percent were adults.

There has been a tremendous amount of initiation, expansion, and updating of all vocational programs to meet the needs and opportunities in the ever-expanding occupational field. To meet this very exciting challenge, we in vocational education are constantly updating and expanding the present program offerings and establishing new programs to meet the needs of the students and community that we are serving.

1. In Business and Office Education the following new programs have been initiated: (*a*) data system, (*b*) office and administrative management, (*c*) accounting program, and (*d*) task training of clerks. The insurance secretarial and clerical training program has been expanded.

2. In distributive education new programs have been established in the areas of (*a*) cashier checker training program, (*b*) radio and TV programing and production, and (*c*) in-school project laboratories. The in-school store program has been greatly enlarged.

3. In home economics related occupations new programs have been established in the following areas: (*a*) child care workers, (*b*) clothing alterations, and (*c*) industrial sewing. The food service program has been increased.

4. The health occupation education area has shown tremendous growth by initiating the following programs: (*a*) dental hygiene, (*b*) physical therapy assistance, (*c*) 2-year degree inhalation therapy, (*d*) medical secretary, (*e*) medical transcript, (*f*) X-ray technician, (*g*) dental assistance, (*h*) dental technician, (*i*) ward clerk, (*j*) associate degree nurse, and (*k*) diversified health program. The licensed practical nurse program has been expanded.

5. In agri-business education six new programs have been added. They are: (*a*) sales and service, (b) agricultural products, (*c*) horticulture, (*d*) agricultural mechanics, (*e*) forestry, and (*f*) natural resources. The area of production agriculture has been greatly updated and broadened.

As the above information and data indicate, there have been tremendous strides in initiating new programs and in the expansion of the existing programs to meet the needs of all of the students in the local communities.

NOTE.—Total enrollments in the first paragraph include comprehensive consumer and homemaking.

c. Postsecondary Courses

POSTSECONDARY ENROLLMENT BY INSTITUTIONS

	1963	1968	1972	1977[1]
Vincennes University (community junior college)	132	842	1,213	1,690
Indiana Vocational Technical College	0	4,534	4,456	6,395
Area Vocational Schools and Comprehensive High Schools	1,701	725	799	1,147
Other postsecondary institutions	0	0	879	1,384
Totals	1,833	6,101	7,397	10,616

[1] Projected.

The postsecondary programs in Indiana are an essential component in the total education system in providing lifelong, continous opportunities for occupational education.

Students in Indiana can select from a wide variety of degree and less-than-degree vocational education program offerings at the postsecondary level. Indiana's system of postsecondary education has grown to include six publicly supported institutions of higher education with 31 campuses, centers, and technical institutes, as well as postsecondary programs offered by more than 10 area vocational schools.

7,397 persons in Indiana pursued some type of postsecondary vocational training during fiscal year 1972—an increase of 5,564 students or 303.5 percent during the last 10 years (since fiscal year 1963). Enrollment for fiscal year 1977 is expected to top 10,600.

Postsecondary enrollments have expanded at a steady rate; however, they are not expanding as rapidly as society's need for highly skilled and specialized workers increases.

d. Disadvantaged Students

e. Handicapped Students

The following data represents disadvantaged and/or handicapped enrollments in vocational education programs provided with Federal funds under part B.

Information concerning disadvantaged and/or handicapped enrollments by regular and special needs programs for fiscal year 1963 is not available.

Special needs enrollments by area of training, fiscal year 1968

Agribusiness	95
Business and office	253
Distributive	79
Health occupations	0
Occupational home economics	316
Technical	0
Trade and industry	331
Total	1,074

DISADVANTAGED AND HANDICAPPED ENROLLMENTS BY AREA OF TRAINING[1] — FISCAL YEARS 1972 AND 1977

	Disadvantaged		Handicapped	
	1972	1977[2]	1972	1977[2]
Agribusiness	74	105	26	37
Business and Office	271	384	0	0
Distributive	28	39	0	0
Health Occupations	23	32	9	13
Occupational home economics	48	68	63	89
Technical	0	0	0	0
Trade and industry	2,834	4,024	242	344
Total special programs	1,341	1,907	672	954
Total	4,619	6,559	1,012	1,437

[1] Information available in this form only.
[2] Projected.

Disadvantaged students

In accordance with the 1968 Amendments, Indiana is continuing to expand and strengthen programs and services for the disadvantaged students who cannot succeed in regular vocational education classes.

Programs consist of special classes within vocational program areas, individualized remedial instruction in math and English, tutorial service, supervised work experience, and the use of individualized learning packets. Two WECEP (work experience and career exploration program) under the sponsorship of the Department of Labor, and funded through the Division of Vocational Education, have been highly successful in decreasing the drop-out rate in the participating schools.

Summer exploratory programs are operated in five schools on a continuing basis. In the summer of 1972, four were conducted in cooperation with NYC projects.

Vocational funds for the disadvantaged provided substantial support for vocational training within our penal institutions. Cosmotology and an intensive office laboratory are operated at the women's prison; an ICT program is operated at the Day Adult High School in Indianapolis primarily, but not exclusively, for youth paroled from Clark County Youth Camp who have not completed the appliance repair course offered there. Other penal institutions offer a wide variety of industrial education and agri-business programs. Incarcerated youth enrolled in horticulture and landscaping provide floral arrangements and do much of the landscaping for the State Capitol, State Office Building and Monument Circle in downtown Indianapolis.

In-service education is provided through three 1-week summer workshops, to be followed by school-year consultation and refresher sessions. The program is directed by Purdue University and can be taken as a credit course.

Summer internships, at two State universities providing vocational teacher education, are provided for students to work with disadvantaged youth.

Handicapped students

The division of vocational education, working cooperatively with the Indiana vocational rehabilitation services and the division of special education, Department of Public Instruction, is continuing to focus attention and direction toward expanding services for the handicapped student as mandated by the 1968 amendments.

Pre-employment vocational education programs are offered primarily for the educable mentally retarded student, frequently through special education's join services units. The curriculum provides exploratory classes at the junior high or middle school level, occupational preparation in the early high school years, and vocational courses and/or cooperation education in the junior and senior years. Both school and community-based job stations are provided. In some schools the PVE students operate the laundry service and fill a substantial percentage of the food service positions.

Some trainable mentally retarded youth are served in special centers under the direction and supervision of area vocational schools, or within sheltered workshop-type activities at the schools. Joint services units also provide remedial education and vocational education for the multiple handicapped.

Vocational education classes in home economics, business, agribusiness and industrial education are offered at the school for the deaf. An institution and community-based supervised work experience is offered teenagers and adults at the Central State Hospital for emotionally disturbed under the auspices of the Division of Vocational Education.

A 10-week intensive skills training program will be offered to handicapped adults at an area vocational school this summer. The project will be funded from Federal, State and local moneys.

A State model for the vocational education of handicapped youth in regular classes at an area vocational school is in developmental stages. It is hoped that the model will demonstrate that with special supportive services, the aid of paraprofessionals and tutors, with adaptive equipment and supplemental materials that handicapped youth can succeed in regular vocational education classes.

ADULT ENROLLMENT BY CATEGORY

	1963[1]	1968	1972	1977
		Adult supplemental		
Agri-business	6,215	4,674	7,587	10,127
Business and office	0	491	7,048	9,409
Distributive	1,604	895	1,591	2,122
Health occupations	0	73	522	693
Home economics related occupations	0	0	255	340
Technical	1,143	1,743	1,102	1,471
Trade and industrial	9,127	12,214	13,365	17,859
Prevocational education	0	0	0	0
Total	18,089	20,090	31,470	42,021
		Adult preparatory		
Agri-business	(3)	1,731	872	1,172
Business and office		0	3,180	4,277
Distributive		0	323	434
Health occupations		610	322	433
Home economics related occupations		178	1,885	2,535
Technical		0	193	259
Trade and industrial		125	2,930	3,941
Prevocational education		0	62	89
Total		2,644	9,767	13,140

[1] Programs listed as adult only; no distinction between preparation and supplemental.
[2] Projected.
[3] See above.

Summary of MDTA institional training enrollments in Indiana from beginning of program (1962)

	Total
Total enrollments (less transfers)	26, 669
Enrollees still training	707
Enrollees who completed training	15, 607
Enrollees who dropped out	10, 355

g. Financing (i)

Reimbursement for a local educational agency's total vocational education program is based upon the approved vocational instructional salaries of the teachers plus local travel (if any) incurred in administering a local vocational program. Reimbursement for each LEA is calculated differently. Part B funds are distributed among local education agencies in accordance with a vocational reimbursement formula developed around a criteria rating for each LEA as determined ~~by to~~tal points assigned in five criteria areas. The five criteria as specified in the Indiana State plan and the scale of points possible for each criteria are:

	High				Low
1. Manpower needs and job opportunities ESD data, State agricultural survey, and other available data. Number of unfilled job openings in locality.	20	16	12	8	4
2. Vocational education needs Rate of unemployment. School dropout rate. Percentage of student population or age group enrolled in a vocational program. Overall vocational education needs.	25	20	15	10	5
3. Relative ability to pay Adjusted assessed valuation/ADA (secondary). Available revenues per student (postsecondary and adult)l	25	20	15	10	5
4. Relative costs of program, services and activities Administrative costs. Excessive costs of equipment and supplies. Excessive transportation and travel costs. Excessive instructional costs due to extended contracts. Maintenance costs. Other costs related to extended services provided.	10	8	6	4	2
5. Other criteria-quality related factors Comprehensiveness of the total vocational education program offered by the LEA. Evaluation of programs.	20	16	12	8	4

In assigning the point value for an LEA's relative ability to pay for secondary programs, the State board relies upon decisions made by the State tax board, the division of school finance, State department of public instruction, and allocations made by the State legislature which determine the adjusted assessed valuation per student (ADA) in the LEA. The following scale is used:

Adjusted assessed valuation/ADA:	*The LEA receives*
$5,999 and under	25 points.
$6,000 to $8,999	20 points.
$9,000 to $11,999	15 points.
$12,000 to $14,999	10 points.
$15,000 and up	5 points.

After points have been assigned in the five criteria areas to a LEA's total vocational program, the following Vocational Reimbursement Formula is applied:

Total approved instructional cost
Criteria × rating [1] = Total points approved
Value × per point [2] = Total reimbursement for program
− Base reimbursement = Final reimbursement

[1] Criteria Rating—as determined by the State plan.

[2] Value/point—
Total points approved for all programs in the State. Value per point
$ available

Twenty percent of the approved vocational instructional salaries per LEA are reimbursed early in the calendar year for all continuing secondary programs.

Forty percent reimbursement is made on new secondary programs based on the approved vocational salary of the instructor(s).

The foregoing two items are considered base reimbursement (or guaranteed revenue) for an LEA's vocational program, and aid the LEA in budget preparation.

The 20 percent and 40 percent guarantees do not apply to consumer and homemaking programs. These are reimbursed at the end of the fiscal year with part F funds.

Adult vocational programs are reimbursed in late June or early July, based on the total hours taught.

Final reimbursement is made (based on the foregoing formula in late July.

Travel reimbursement is as follows:

A. State-called travel—Reimbursed at 100 percent when stated on announcement of meeting. 10 cents per mile—$16 per diem.

B. Local travel—All other travel and per diem is considered as local travel and will be reimbursed based upon the following formula:

Percent of reimbursement	*School's criteria rating*
50	20 to 60.
55	61 to 80.
60	81 to 100.

10 cents per mile—$16 per diem local travel.

Equipment reimbursement

Reimbursement for equipment is not included in the formula. Equipment requests are submitted on a separate form to the division of vocational education staff for approval. Percentage of reimbursement to the LEA for approved equipment is then calculated on the relative ability of the LEA to pay as determined by the adjusted assessed valuation behind each student. This is further explanation of Indiana's use of variable matching of local funds for Federal funds. The scale for equipment reimbursement is as follows:

Adjusted assessed valuation/ADA:	*Percent of Reimbursement to LEA*
16,000 and up	20
15,000 to 15,999	25
14,000 to 14,999	30
13,000 to 13,999	35
12,000 to 12,999	40
11,000 to 11,999	45
10,000 to 10,999	50
9,000 to 9,999	55
8,000 to 8,999	60
7,000 to 7,999	65
6,000 to 6,999	70
5,000 to 5,999	75
4,999 and down	80

NOTE: State average per ADA = $10,309.

g. Financing (ii)

Indianapolis is the only city in Indiana with a population of over 250,000.

INDIANAPOLIS FISCAL YEAR 1972 DATA

B category	Federal	State	Local
Secondary	$61,219	$78,316	$186,759
Postsecondary	159,078	0	469,434
Adult	39,534	9,805	0
Disadvantaged	96,323	16,528	85,501
Handicapped	9,727	1,794	212
Total	365,881	106,443	741,906

Percent of B Federal funds: $\frac{365,881}{9,511,708} = 3.8\%$

Percent of B State funds: $\frac{106,443}{1,800,000} = 5.9\%$

Percent of B Federal and State funds: $\frac{472,324}{11,311,708} = 4.2\%$

INDIANAPOLIS ENROLLMENT DATA—FISCAL YEAR 1972

	Indiana	Indianapolis	Percent of total
Population	5,193,669	744,626	14.3
Vocational education enrollment	154,556	5,801	3.8
Secondary vocational education enrollment	101,506	2,131	2.1
Postsecondary vocational education enrollment	7,529	2,129	28.3
Adult vocational education enrollment	45,521	1,541	3.4

Indianapolis summary

Although Indianapolis has 14 percent of the State population, they are only serving 3.8 percent of the total vocational education enrollment. As of fiscal year 1971, Indianapolis ranked 46th in total vocational education enrollment among 46 major cities in the United States. Indianapolis Public Schools is in the process of developing and implementing a comprehensive vocational plan to rectify this situation. The combined percentage of Federal and State vocational dollars (4.2 percent) is in line with Indianapolis' percentage (3.8 percent) of the total vocational education enrollment in the State.

Ten counties centered around southeastern Indiana represent the poorest rural areas in the State based upon adjusted assessed valuation.

10 RURAL COUNTIES, FISCAL YEAR 1972 DATA

B category	Federal	State	Local
Secondary	$270, 712	$108, 410	$179, 146
Postsecondary	0	0	0
Adult	5, 304	0	0
Disadvantaged	63, 261	9, 803	66, 828
Handicapped	0	0	0
Total	339, 277	118, 213	245, 974

Percent of B Federal funds: $\frac{339{,}277}{9{,}511{,}708} = 3.6\%$

Percent of B State funds: $\frac{118{,}213}{1{,}800{,}000} = 6.6\%$

Percent of B Federal and State funds: $\frac{457{,}490}{11{,}311{,}708} = 4.0\%$

10 RURAL COUNTIES ENROLLMENT DATA—FISCAL YEAR 1972

	Indiana	10 counties	Percent of total
Population	5, 193, 669	242, 050	4. 7
Vocational education enrollment	154, 556	4, 178	2. 7
Secondary vocational education enrollment	101, 506	2, 346	2. 3
Postsecondary vocational education enrollment	7, 529	0	0
Adult vocational education enrollment	45, 521	1, 832	4. 0

Rural area Summary

The 10 counties previously referred to are sparsely populated and constitute only 4.7 percent of the total State population. Due to the geographic area and the sparse population, only 2.7 percent of the State's total vocational education enrollment exists in this rural area, and they are receiving 4 percent of the total part B Federal and State moneys being allocated. About one-half of the total vocational enrollment in these 10 counties is centered at an area school facility located in Ripley County.

h. Construction and Equipment

	Federal	State	Local
	Investments in construction		
1963-68	$8, 456, 167	$85, 020	$8, 371, 187
1969-72	4, 132, 865	15, 000	11, 499, 280
1973-77	6, 000, 000	100, 000	16, 000, 000
Totals	18, 580, 032	200, 020	35, 870, 467
	Investments in equipment		
1963-68	3, 358, 928	3, 523, 524	([1])
1969-72	2, 393, 999	490, 121	3, 055, 657
1973-77	5, 000, 000	1, 000, 000	6, 000, 000
Totals	10, 752, 927	14, 069, 302	([1])

[1] State and local combined.

Construction of area school facilities has progressed at a well-planned rate in Indiana with an average of about three to four construction starts per year. It is anticipated that this same rate will continue in the next 5 years. All area school facilities are well equipped as are most comprehensive high schools; however, there is a financial problem both at the local and State levels in that additional equipment moneys are needed to equip new programs and replace out-dated equipment in continuing programs. This problem could be alleviated if vocational education were again allowed to participate in the Federal excess property program.

a. Exemplary Programs and Projects

The use of exemplary funds have enabled Indiana to establish a number of programs bridging the gap between school and employment for young people, promoting cooperation between public education and manpower agencies and broadening occupational aspirations and opportunities for youth. Career education and development have become a guiding concept of projects funded under part D exemplary funds. Utilization of successful concepts and the application of these in new, unique settings have strengthened vocational education in Indiana.

Fiscal year 1968.—No data available.

	Enrollment
Fiscal year 1972 program—State's share (State administered):	
Pilot program for health occupations in secondary schools	223
Youth leadership development	75
Marketing technology: The need for a related associate degree program with emphasis on sales and distribution	154
Prevocational education program at the middle school level	700
Exemplary and research program for students who terminated their education prior to having a salable skill	757
Fiscal year 1972 program—Commissioner's share (federally administered):	
Comprehensive vocational guidance program for model cities	6, 000
Total	7, 909

Fiscal year 1977 projected.—Indiana will continue to identify priority areas for exemplary projects with continuing emphasis in the areas of guidance and counselling, career education, and disadvantaged and handicapped. Enrollment in exemplary programs is projected to reach 12,000 students.

b. Residential Vocational Education

Under the present State laws the State of Indiana cannot operate residential vocational education schools. The current practice in Indiana is for students to attend an area vocational facility near their home high school on a half-day basis.

c. *Consumer and Homemaking*

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)						1976-77 (fiscal year 1977)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics			Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	34,894	38,648	545	50,458	(72)		743	(48)	(63)	59,308	(180)		901	(190)	(250)
Adult	3,994	2,874	178	4,284			2,140			5,031			2,595		
Total	38,888	41,522	723	54,742	(72)	0	2,883	(48)	(63)	64,339			3,496	(190)	(250)

The 1972–73 school year was the first year for implementation of the revised curriculum for consumer and homemaking programs in Indiana secondary schools. Evidence is apparent of the consumer education/interpersonal relations focus at the basic or ninth grade level of instruction. Learning experiences to meet the needs of specific groups are selected by teachers and those in depressed areas relate to these special needs: As examples, inner city students utilized local stores as a learning laboratory for management of the food dollar; students in a rural depressed area applied money management principles to their particular problems; students in an urban fringe area established a saving bank account within their own classroom and learned that pennies saved in a systematic savings plan result in money for a special project. Clothing alteration, child care, and meeting housing needs are also gaining special attention. Through cooperation of teacher educators, more resources are being developed to aid teachers working with students in depressed areas. From verbal reports from teachers, enrollment for next year is on the increase.

d. Cooperative Vocational Education

Enrollment by program area	1963	1968	1972	1977
Agri-business	[1] 402	369	200	300
Business and office education		571	5,261	7,891
Distributive education	362	877	1,862	2.793
Health occupations education			412	618
Home economics related occupation			280	420
Industrial cooperative training	447	1,188	2,639	3,958
Total	1,211	3,005	10,654	15,980

[1] Figures include all cooperative programs regardless of source of funding.

Through 1972, Indiana continued its strong support in the growth and development of quality cooperative vocational education programs. As indicated by the chart above, over 10,000 students are enrolled in cooperative programs. This represents over a 300-percent increase since 1968 and just under a 900-percent increase since 1963.

Indiana is using an interdisciplinary approach to provide the rural communities cooperative vocational education. There are some 500 students enrolled in these programs. Also, cooperative education is serving many disadvantaged and handicapped students. These figures are absorbed in the above chart.

A new staff position (cooperative education consultant) was created and filled in August 1972, to coordinate all cooperative programs to insure the continued growth and quality of these programs.

e. Work Study Programs

Work study enrollments:

1963	NDA
1968	566
1972	452
1977	520

The work study program has been effectively utilized by local education agencies to provide employment for vocational education students who are in need of earnings from such employment to continue their vocational educational programs. Work study programs are operated in both rural and urban areas of the State.

The success of this program has been remarkable, and the response from local education agencies so overwhelming that we could double the number of students being served with additional Federal funding.

f. Research and Training

Research and Development funds under part C of the 1968 Vocational Education Amendments have been a very useful means to up-grade, expand, and evaluate vocational education in Indiana at all educational levels and in all types of local educational agencies (LEA) from elementary school through postsecondary and into research on teacher's attitudes and pre- and in-service preparation in vocational education.

Research and development funds have been utilized extensively in planning phases for improving vocational education. A number of feasibility studies for area vocational schools have been completed, enabling a systematic approach to total program planning. With the assistance of R. & D. funds, Indiana has developed a unified approach for program development on an area basis. Thirty-three area programs are in operation, with 23 of those having a central facility. Eleven areas have completed their feasibility study. The State has been divided into 48 possible areas for total vocational planning purposes.

Another area of research supported by part C funding is the piloting of a career education curriculum guide in 12 different LEA's at all educational levels. These curriculum materials are being tried, tested, revised and rewritten. Upon completion of the project, a comprehensive guide will be available in a usable form for any teacher in Indiana. Linked with this project are two models for career education funded under the commissioner's share of part C. Through these two State models, a total effort is being made to activate career development action throughout all levels of the models, making career education an integral part of public school education.

STATE ADVISORY COUNCIL

The most significant contributions of the State Advisory Council within the last 5 years are as follows:

I. Studies

A. An educational opportunities awareness study, 1970, Tri State Advertising Co.

B. A 1971 evaluation of vocational and technical education in Indiana, Anacomp, Inc.

C. Labor, supply model, in the process of being developed.

II. Public Information

A. "Success through career education," 1971–present. This program has been promoted through billboard advertising displays, video and radio tapes with responses directed to local education agencies nearest the applicant.

B. Bumper stickers promoting vocational education week in Indiana. During the spring of this year, 60,000 bumper stickers were distributed throughout the State by local vocational youth organization students.

C. Indiana's VIP treatment. The council has published and is in the process of distributing 25,000 brochures outlining vocational programs available to veterans in Indiana.

Attached is a list of the most recent State Advisory Council's recommendations, and the response to these recommendations by the State Board of Vocational and Technical Education.

STATE OF INDIANA ADVISORY COUNCIL
FOR VOCATIONAL AND TECHNICAL EDUCATION,
Indianapolis, Ind., December 15, 1972.

Mr. JOHN G. DEAN, *Chairman*
Indiana State Board of Vocational and Technical Education, Room 1012, State Office Building, Indianapolis, Indiana 46204

DEAR MR. DEAN: The Indiana Advisory Council on Vocational Education respectfully submits the (Third Annual) *Evaluation of Vocational Education for the State of Indiana.*

The Council invites attention to the Statutory stimpulation that this report is to be submitted to the U.S. Commissioner of Education and The National Advisory Council on Vocational Education through the State Board of Vocational and Technical Education, accompanied by such additional comments as the State Board deems appropriate.

The recommendations in this report are submitted subsequent to a study of the current status of vocational educational in this state. The Council feels these recommendations, if implemented, will result in significant improvement in present programs.

Respectfully submitted,

RICHARD L. GOSHERT,
Chairman.

RECOMMENDATIONS OF STATE ADVISORY COUNCIL FOR VOCATIONAL AND TECHNICAL EDUCATION TO STATE BOARD FOR VOCATIONAL AND TECHNICAL EDUCATION

The Advisory Council is directed by the rules and regulations of the Department of Health, Education and Welfare. Public Law 90-576 to provide for not less than one open hearing each year at which the public is given the opportunity to express views concerning Vocational Education.

The Council had three open hearings, during this past year: Indianapolis, Evansville, and Warsaw, Indiana. The purposes for the regional hearing were:

1. To provide a public forum for Vocational-Technical Education in Indiana.
2. To secure public responses to the recommendation of the Council as submitted to the State Board of Vocational-Technical Education.
3. To receive suggestions and proposals from the public on Vocational Education.

Every effort was made by the Council to involve a broad cross section of organizations, groups and individual interests in the planning of the hearings.

Through these hearings the Council was reassured of the interest, concern and enthusiasm of many citizens in behalf of the well-being of the State and its citizens through their concern for Vocational-Technical Education.

The following recommendations will reflect the concerns of these citizens along with the deliberations and findings of the Council.

RECOMMENDATIONS TO THE STATE BOARD

Findings of the Current Status of Vocational Education in Indiana

Vocational education is improving in our State. The State Board of Vocational and Technical Education has demonstrated effective leadership during the past year. Vocational education is becoming recognized as a valid educational discipline and reasonably well facilitated.

28% of our secondary students are enrolled in vocational programs. This represents a growth of 89% during the past 6 years.

The business community is involved in vocational education. Effective articulation with employers is evident by the apparent usage of advisory committees for the vocational programs in operation..

Standardized operational agreements for school corporations participating in area vocational programs have been adopted as a result of the leadership of our state vocational office.

Pre-service and in-service vocational teacher education is now well organized through our designated teacher training institutions and is adequately available to personnel in all local educational agencies.

An effective vocational education data system has been implemented for all local educational agencies operating approved vocational programs which will provide an information base for decision-making relative to program implementation and continuance.

The Council commends the State Board of Vocational and Technical Education for exercising the leadership necessary to cause the effort noted above to be activated.

Recommendations for Continued Improvement and Development

Special emphasis is needed to expand vocational education opportunity for women. Presently, woman comprise 37% of our labor force. Women are continuing to enter the labor force at a much faster rate than men. Contemporary social concerns such as the "Women's Liberation Movement" are causing additional employment opportunity to be available for women. Emphasis should be placed on the development of vocational programs to accommodate women and planned efforts should be made to encourage the enrollment of women in kinds of programs traditionally considered for "men only."

The administrative structure of vocational education at the state level is of paramount importance. The State Board of Vocational and Technical Education should continue to serve as the responsible body for the receipt and disbursement of federal vocational funds. It is recognized that certain alternatives in terms of the make-up and location of the State Board might be adopted by the legislature in keeping with the recommendations of the Committee for reorganization of the Department of Public Instruction, which has recently completed an exhaustive study. The involvement of the Higher Education Commission should be limited to serving as a "clearinghouse" for post-secondary programs sponsored by institutions of higher education. The tentative recommendations #48 and 49 of the Higher Education Commission, as noted in their recent document #72-137-6, are deemed to be unacceptable. The State Board of Vocational and Technical Education should pursue the assumption of the role of the "Commission" mandated by Public Law 92-318.

Post-secondary vocational education should be substantially expanded in our state. Even though an increase in overall vocational education enrollments is noted, we still have only about 7,000 persons enrolled in post-secondary vocational programs. All institutions, including area vocational schools and public school districts in addition to institutions of higher education which are capable of operating post-secondary vocational programs, should be encouraged to develop and offer such programs to the people in all communities of the state.

Continued emphasis should be placed on the emerging concept of "career education." We are at a point in time with the career education "idea" where we need to do more than just fund "model" programs or to conduct "conferences to *define* career education." It is recommended that an honest COMMITMENT to career education be made by the Office of the Superintendent of Public Instruction. A commitment in keeping with that of the U.S. Office of Education. Such a commitment should involve the leadership of all other educational disciplines as well as vocational education.

It is recommended that the State Board provide incentive and encouragement to local educational agencies to become acquainted with the recently adopted criteria of the North Central Association of Secondary Schools and Colleges relative to accreditation vocational education schools. Consideration might be given to providing added levels of reimbursement to North Central accredited vocational schools. Additionally, continued use of self-evaluation criteria which is compatible to North Central Association standards is encouraged.

Continued emphasis should be placed on improving total school guidance services in vocational and career education. It is desirable that guidance counselors in high schools are assigned and definitely responsible for the dissemination of occupational information and to serve as liaison representatives for area vocational schools. Reference is made to the recent report of the National Advisory Council alluding to the relative ineffectiveness of guidance services in our schools. Steps should be taken to insure real internal thrust to improve vocational guidance and counseling. Consideration should be given to partial funding for specially dedicated vocational counselors in high schools participating in area vocational education programs. Additionally, emphasis should be placed in expanded placement services for vocational education graduates to insure a smooth transition from training to employment.

It is recommended that a standardized budget format should be developed jointly by the State Board of Accounts and the State Board of Vocational and Technical Education to serve as a model for local educational agency usage. The format should provide for budgeting on a "program" basis and have provision for the identification of all associated costs (including indirect costs as well as direct costs) so that a totally accurate accounting can be made of the costs of vocational education on a program basis. Additionally, such a budgeting format should be adaptable to PPBS system which will be required for public school accounting by 1975.

The very real need for substantially increased state funding for vocational education continues to persist. It is recommended that the State Board of Vocational and Technical Education exercise all the legislative influence at its disposal to increase state appropriations. The major portion of the cost of vocational education remains at the local level. Indiana expends less than $12 per vocational education student per year. In comparison with other states, such as Illinois at $37 per student; Wisconsin at $44 per student; Ohio at $72 per student; Kentucky at $123 per students; and the national average at $58 per student, Indiana ranks in an undefensible position.

Additionally, in consideration of the societal needs of vocational education in comparison with the needs for higher education, the state monies available for vocational education are considerable more minimal than the state funds made available for higher education. This inequity should indeed be corrected.

It is recommended that the State Board of Vocational and Technical Education establish and maintain communication linkages with the Indiana Association of Public School Superintendents and the Indiana School Boards Association so that all the members of these two groups are adequately informed about vocational education policies, rules regulations and guidelines.

It is recommended that the State Board of Vocational and Technical Education favorably consider partial funding of approvable pre-vocational programs which serve as stepping stones to vocational programs pursuant to federal funding of Title X of Public Law 92-318.

It is recommended that the State Board of Vocational and Technical Education establish the mechanism for the complete implementation of all provisions of the federal Education Amendments of 1972 pertaining to vocational/occupational education so that such provisions can be placed in immediate effect upon funding of the act by the federal government.

RESPONSE TO THE STATE ADVISORY COUNCIL RECOMMENDATIONS FOR FISCAL YEAR 1974

The State Board of Vocational and Technical Education appreciates the kind statements made by the State Advisory Council for Vocational Education concerning the progress that has been made in Vocational Education in Indiana and pledges themselves to continuation and expansion of a sound and productive vocational system. The Board respectively responds to the State Advisory Council's recommendations in the following manner.

Opportunities for Women in Vocational Education Programs.—The State Board has encouraged all local educational agencies to maintain an open door policy on admissions to vocational education programs at all levels of instruction. They will continue this encouragement.

Administrative Structure.—The State Board of Vocational and Technical Education has taken the position that they do not recommend an administrative structural change for Vocational Education and continues that stand.

Post-Secondary Program Expansion.—The State Board continues to encourage the expansion and improvement of post-secondary vocational education programs by funding on-going and new programs. It is a paramount importance that without greatly expanded state funds for vocational education at all levels of instruction, the State Board will not be able to expand post-secondary vocational education at a much more rapid pace than it has in the past few years.

Career Education.—The State Board endorses the concept of Career Education and recognizes the important role played by vocational education in this concept. The Board would recommend that the State Department of Public Instruction develop the concept and implement programs when economically and programmatically feasible.

North Central Accreditation.—The State Board has placed into operation a Self-Evaluation Instrument for Secondary Programs during the last year. The State Board will consider the recommendation made by the Council over the next several months. Although the State Board will continue to encourage LEA's to improve the quality of their programs by any means available to them, it does not seem to be feasible to give added reimbursement to North Central accredited schools at this time. This would be particularly true during a time of many unknown quantities relating to federal funding.

Counseling.—The State Board recognized this problem last year and called for the development of pilot counselor education programs which have been funded by the Board. The Board does not think it feasible during a time of extreme unknown federal funding commitment to commit themselves to an additional reimbursement for Guidance Counselors in comprehensive high schools. The Board will attempt to collect data that will give a basis for making a decision on this recommendation over the next several months. The State Board recognizes placement as the number one goal to success of a vocational program and will encourage this phase of the counseling program.

Local Budgeting.—The State Board Staff developed and implemented an agreement, contract and an accounting system with all of the operating area vocational schools and programs during the past fiscal year. A local budgeting system now in operation in two or three locations in the State has been under study and development for usage as a state-wide local budgeting system. The State Board also recently funded a local planning development project to be used statewide.

State Funds.—The State Board of Vocational and Technical Education has recognized the need for additional state funds for vocational education at all levels for the past several years. The Board recognizes the inequity between monies available for higher education as compared to vocational education. Increased level of funding for vocational education programs in Indiana must be realized to carry out effective programs.

Indiana Public School Superintendents Association and Indiana School Boards Association.—The Board and its staff have had a good communication linkage with these two associations for considerable time and will continue these efforts to improve relationships with these organizations as well as other associations and agencies involved with vocational education.

Pre-Vocational Education Funding.—The State Board has funded pilot programs at this level of instruction. The Board does not support the funding of pre-vocational education programs out of regular monies as long as the levels of funding from the Federal Government are not greatly increased. The final guidelines for the provision of pre-vocational programs have not been received by the State Board office at the time of the development of this response.

1972 Education Amendments Implementation.—Continued study will be made on this recommendation. The Board has considered some forms of implementation on the Vocational Education parts of the 1972 Amendments, but due to the recent communication from the U. S. Commissioner of Education pertaining to the implementation of the various requirements of the Act, the Board's action on this recommendation will be at a greatly reduced speed.

Area School Remodeling Facilities.—The State Board will continue to evaluate each proposal on its own merits keeping in mind the total area school plan for the State and the feasibility of the proposed plan for a local area.

SUMMARY AND RECOMMENDATIONS

Progress: The impact of federal funds in Indiana within the last 10 years has been remarkable—enrollments have increased 120 percent. By presenting vocational education as an integral part of the total education system, over 154,000 people took advantage of receiving occupational training in quality programs.

The following recommendations are submitted for your consideration:

1. Federal funds should be allotted prior to the beginning of the fiscal year to allow for better planning and budgeting.
2. With the emphasis being given career education today, additional funding should be seriously considered in order to properly implement this concept and philospohy.
3. Local education agencies offering vocational education programs should again be allowed to participate in the Federal excess property program. Participation in this program will enable Indiana and other States to more effectively meet the mandate of Congress outlined in the Vocational Education Act of 1963 and the Vocational Education Amendments of 1968 in maintaining, extending, and improving existing programs and developing new programs.

IOWA

State Director—William O. Schuermann

INTRODUCTION

Total enrollments in vocational-technical education programs have more than doubled during the past 10 years, increasing from 65,391 in fiscal year 1963 to 133,442 for fiscal year 1972. Projected estimates indicate continuing growth, with an anticipated enrollment in fiscal year 1977 of 202,325 or an increase of more than 300 percent above the achievements for fiscal year 1963.

STATE VOCATIONAL EDUCATION PROGRAMS

Job Training Enrollments

Enrollment information indicating instructional levels and arranged by occupational area, disadvantaged, handicapped, consumer and homemaking, cooperative education, and work study programs is presented in the Iowa career Education enrollment trends table.

General Description of Training Programs

Most of the occupational areas experienced strong growth during the period. Much of the change paralled national trends, with rapid increases in the health field and continued swift expansion in such areas as distributive education and trade industry occupations. Office occupations had not yet begun operating as a vocational program area in 1963; but indicated extremely rapid growth shortly thereafter, due primarily to the fact that this job area encompassed data processing occupations which have experienced extremely strong growth. The total number of enrollments in technical programs has not increased, but the type of programs has shifted from short-term supplementary courses offered through university extension in 1963 to full-time postsecondary programs now offered in Iowa's area schools and community colleges, encompassing such specialized areas as electro-mechanical technology, mechanical technology, machine and tool design, educational media technician, and police science technology, to enumerate only a few of the many offerings.

Agricultural education has experienced slight, but steady growth and again indicates a trend toward more technical postsecondary programs such as animal science, production management which includes training in managing feedlots and stockyards, floriculture, and agriculture resources. The growing recognition of the importance of agribusiness industries is reflected in the large number of courses providing training in a wide variety of agriculturally related services.

Projection methods for fiscal year 1977 resulted in total estimates by level and by program area but did not permit a specific course area-instructional level mix.

Responsibility for adult preparatory and supplementary programs is primarily lodged with the 15 area vocational schools and community colleges. Thus, in many instances, data for adult and postsecondary programs are combined. This is particularly evident in such areas as disadvantaged, handicapped, and work study programs.

Postsecondary Courses

Dramatic changes occured within this general growth pattern, as the creation of Iowa's merged area school system by the 1965 state legislature bouyed postsecondary enrollments from 627 in fiscal year 1963 to an achievement of 15,688 in fiscal year 1972. All of the increase occurred in the 15 area schools and community colleges, as use of State university technical institutes declined rapidly as the new educational system emerged. These changes are depicted graphically in the chart "Iowa Career Education Enrollment Trends."

Disadvantaged Students

Identification of disadvantaged students did not begin until after the Vocational Education Act of 1963. Even in 1968, such identification was restricted primarily to an indication of special education students enrolled in vocational education programs. Earmarked funding in the 1968 amendments to the Vocational Education Act resulted in planned supportive and remedial programs designed specifically to meet the needs of disadvantaged individuals. Secondary and postsecondary institutions developed and implemented projects and programs to better identify and serve this population. Experienced staff personnel were added at the State and local levels, including special needs coordinators who worked with disadvantaged individuals, other instructors, community agencies, and area employers in order to create a service delivery system to meet specific individual needs.

Increased emphasis is now being placed upon world of work orientation, i.e., assisting the individual in self-assessment by using comprehensive vocational evaluation centers while simultaneously providing exposure to various occupations through exploratory activities. Ultimately, career decisions will be made and appropriate preparatory training initiated.

Handicapped Students

Specific identification of handicapped students did not occur until after fiscal year 1968, although work study programs for physically handicapped and mentally retarded students had been in operation in many schools as part of the special education program. Today special needs programs, services, and activities encompass both disadvantaged and handicapped individuals. Actually, so much overlapping occurs between the two classifications that it becomes quite difficult to determine that any one person is handicapped, but not disadvantaged or vice versa.

Adults

The adult population in Iowa is served basically by the merged area community colleges. Each postsecondary institution has an adult director and/or coordinator responsible for adult supplementary programs. The supplementary coordinators are primarily concerned with those individuals who are presently employed and in need of job retraining or upgrading. Short-term and regular preparatory programs are administered by the institution's vocational director, regardless of the student's age. Therefore, all preparatory enrollments are included in the postsecondary columns of the chart "Iowa Career Education Enrollment Trends," while the upgrading and retraining students are reflected in the adult supplementary columns.

Programs using Federal manpower funds (MDTA) have existed in Iowa since the first class began on November 5, 1962. Early training projects in 1963 included such specialized courses as upholsterer, auto mechanic, licensed practical nurse, and mechanical draftsman. Courses were offered in 11 areas in the State. Simultaneously, the U.S. Naval Pre-Flight Training School at Ottumwa was acquired as a manpower training facility and became the Iowa Technical Center, where courses were offered in data processing. The facility has since expanded and has evolved into the present Indian Hills Community College, which serves 10 counties in merged area 15.

As the area school system emerged, MDTA emphasis began shifting from establishing specific class-size projects to a process of individual referral of MDTA trainees to ongoing classes in the area schools. The multioccupational skill center in Des Moines has remained and is utilized as a statewide training center for individuals requiring extensive counseling and other supportive services. Skill center training is now offered on a cluster basis, with spinoff possible to several different entry jobs, e.g., automotive cluster, business occupations cluster, food service cluster, etc. Continuing emphasis is being placed on part-time upgrading training, again accomplished through individual slot-in referrals to ongoing programs.

MDTA enrollments were insignificant in 1963, but had reached 2,058 by 1968 and 2,852 in 1972. The slot-ins are reflected in the enrollments indicated in the chart "Iowa Career Education Enrollment Trends."

Financing

(i) The State board of public instruction determines the relative priority of career education programs, services, and activities for consideration in allocating funds. Criteria used include manpower needs and job opportunities, population needs, relative ability to pay, and excess costs of programs, services, or activities. After weighting of criteria, point assignment and calculation of the State average, quartiles of spread are established with reimbursement differentiation of 5 percent per quartile. For a detailed explanation of current practice set forth in the 1973 State plan, see appendix A. Criteria for allocating funds and a formula for arriving at relative costs of programs, services, and activities have been submitted to the USOE for consideration in the proposed 1974 State plan. See appendix B for a detailed explanation of these criteria and formula.

(ii) Iowa has no cities with a population in excess of 250,000. At least one-third of part F funds were used annually for programs in economically disadvantaged areas of Iowa.

The largest city in Iowa, Des Moines, with a population of over 200,000, received 48 percent of the one-third part F funds in 1971, and 16.8 percent of these funds in 1972.

Funds were used for one-third part F programs in smaller cities of Iowa, Cedar Falls, Waterloo, Sioux City, and Council Bluffs.

One-third part F funds expended in the poorer rural areas of Iowa are in the chart below.

EXPENDITURES OF ONE-THIRD PART F FUNDS

	Total Federal funds expended	Rural areas (poor)		State funds for matching
		Funds	Percent of total	
Actual:				
1963	(2)	(2)	(2)	(2)
1964	(2)	(2)	(2)	(2)
1965	(2)	(2)	(2)	(2)
1966	(2)	(2)	(2)	(2)
1967	(2)	(2)	(2)	(2)
1968	(2)	(2)	(2)	(2)
1969	(2)	(2)	(2)	(2)
1970	$282,510	$68,195	24.1	0
1971	84,128	47,944	57.0	0
1972	380,980	70,277	18.4	0
Projected:				
1973	132,332	52,307	39.5	0
1974	132,332	88,333	66.8	179,082
1975	(2)	----------	----------	(2)

[1] Secondary only

[2] Information not available.

Construction and Equipment

Since 1965, the greatest impact in the construction of facilities and the provision of equipment for administrative and instructional purposes has occurred at the postsecondary level in Iowa. Facilities and equipment have been provided for the 15 merged area schools, which include 4 area vocational schools and 11 community colleges and their satellite attendance centers.

At the secondary level, records of construction for vocational purposes are not maintained as a separate entity to the total construction costs for secondary school facilities. Reimbursement to secondary schools is on the basis of salary and travel and does not include equipment or construction costs.

No Federal funds provided by the Vocational Education Act of 1963, amended 1968, have been or are being used for construction.

In 1965, $6 million was appropriated by the Iowa Legislature for area school (postsecondary) construction, e.g., planning, site purchase, and building. In 1967, the legislature appropriated an additional $9,500,000 for construction; but since that time, no State funds have been available for construction.

The local contribution to construction has been provided by a local three-quarter mill levy and other sources. Currently, the three-quarter mill levy serves as the primary source of moneys for area school construction.

State and local funds used for construction at postsecondary schools are as follows:

CONSTRUCTION AT POSTSECONDARY SCHOOLS

	Federal	State	Local	Total
Fiscal year:				
1963–64	0	0	0	0
1965–72	0	$15,500,000	$6,979,603	$22,479,603
1973	0	0	2,523,566	2,523,566
1974–77	0	0	[1] 20,500,000	20,500,000

[1] Projected.

Since 1969, equipment costs have been borne by the local and area schools. Reimbursement to area schools provide for payment of a portion of the direct costs and a lesser amount of the indirect costs in accordance with the 1968 amendments to the Vocational Education Act of 1963.

The table which follows contains incomplete information because data were not collected concerning the cost of equipment supplied entirely by local funds.

EQUIPMENT

	Federal	State	Local	Total
Fiscal year:				
1963–66	(1)	(1)	(1)	(1)
1967–68	$1,472,419	$1,976,866	$880,380	$4,329,665
1969–72 [2]	1,267,639	1,267,640	[3] 2,815,499	5,350,778
1973–75 [4]	195,582	195,582	[5] 2,031,947	2,393,849
1976–77	(1)	(1)	(1)	(1)

[1] Information not available.

[2] Information for fiscal years 1971 and 1972 available only for area (postsecondary) schools.

[3] Information not available for local in fiscal year 1970.

[4] Information for fiscal years 1973, 1974, and 1975 available only for area (postsecondary) schools.

[5] Information not available for local in fiscal year 1975.

OTHER FEDERAL PROGRAMS

Exemplary Programs and Projects

No exemplary projects had been approved in 1968. By 1972, several projects were in various stages of implementation. Areawide project for occupational orientation, exploration, counseling, job training, and placement for elementary and secondary students, grant No. OEC–0–71–0676(361), project No. 0–361–0070, completed its second year of implementation. There were 31 school districts involved in the project with 795 students participating in career exploration. Increased instructor and pupil enthusiasm and less student absenteeism than in the previous year were among the outcomes of the project.

Grant No. OEG–0–71–0922, project No. V261023L, included projects, models for secondary career education in Iowa, conducted by Iowa State University in six school districts, and unifying a career education theme in the curriculum through teacher inservice activities in the Mason City Community School District. These projects began on February 4, 1972, by hiring staff, obtaining resource materials, and visiting all school faculties and administrators. Workshops were conducted for 131 teachers and administrators in May and June, and plans were laid for implementation and evaluation during the next school year.

At the State level, 14,456 students, grades K–12, were served by four exemplary projects. Models for precareer education in Iowa conducted a workshop for 160 teachers from each grade level (K–8), guidance counselors, and administrative personnel for nine school districts.

Objectives and activities for each school were developed with vertical and horizontal articulation. The program was implemented in the nine school districts grades K–8, with 4,004 elementary and 1,430 junior high school students participating. An interim report was prepared for limited distribution. A contract for third-party evaluation of this project was executed.

Total career education was implemented in Monticello Junior High School with workshops for participating staff, involvement of community resources and personnel, and multimedia presentations to 291 junior high school students. Exploratory experiences emphasized hands-on activities. Ongoing evaluation resulted in program and scheduling changes. A 48 percent decline in discipline referrals to the office from the same group of students was experienced the first semester of program operation. This project was extended to all elementary schools in Monticello for 1973.

IOWA developed scripts for 200 occupations with information tion about opportunities in the locale reproduced on microfilm. Card decks were distributed to pilot schools and used by 490 elementary and 3,323 secondary students and 70 adults. Inservice training for guidance counselors was conducted. Evaluation by students and pilot school staffs led to expansion plans for participation of all interested schools of merged area XI.

Computerized vocational information system (CVIS) served 4,918 secondary students with vocational information provided through eight terminals located in a trailer which visited three school districts in the spring. A booklet containing basic information about Iowa postsecondary schools and colleges, admission requirements, courses and fees was published and disseminated. Plans were made for revision of this booklet and for CVIS visits to 11 school districts the next year.

Evaluation teams from the Department of Public Instruction visited the projects, collected and analyzed information and self-evaluation data from each project, and suggested adjustments for improvement.

In the years between 1972 and 1977, the projects identified above will be completed. Participants in the career awareness and exploration projects are expected to include 6,805 elementary and 14,123 secondary students. It is anticipated that by 1977, the techniques, curricula, and resources identified in these projects will be adopted by many schools in Iowa and will have 170,000 elementary and 120,000 secondary students participating in career awareness and exploration activities. The occupational information projects are expected to reach 575 elementary and 21,245 secondary students by the completion date of the projects. It is anticipated that by 1977, occupational information project services will be available to every school district in Iowa as part of the regular curriculum.

An additional exemplary project will be initiated and completed before 1977 by the Des Moines community schools. It is anticipated that this project will reach 47,000 students from K–14 in both public and private schools, will include disadvantaged and handicapped students and will reach out-of-school youth as well. It will provide career awareness and exploration activities, preparatory career education, guidance, placement, and followup services, career information, and staff development.

Projections for 1977 include two new exemplary projects with 2,000 elementary, 6,000 secondary, and 3,000 postsecondary participants.

Residential Vocational Programs

No residential programs have been funded to date and none are anticipated.

Consumer and Homemaking

Total consumer and homemaking enrollments have doubled over the past 10 years. Secondary enrollments progressed from 16,419 in 1963, to 20,860 in 1968, and 33,622 in 1972. There were no postsecondary enrollments for 1963 but 47 enrollees in 1968, and 308 in 1972. Although adult enrollments declined from 7,589 in 1963, to 6,491 in 1968, they more than doubled in 1972, with a total of 16,030 enrollees. See the chart which follows.

In 1963, there were no offerings for gainful employment. In 1968, there were occupational offerings at all levels serving 854 individuals, and by 1972 these offerings served 2,240 enrollees. Projections indicate a total enrollment in 1977 of 65,000 students of which 7,000 will be in preparatory programs for gainful employment and 58,000 in consumer and homemaking education for improved family living.

Emphasis upon consumer education has increased greatly during this time span with larger portions of the curriculum being devoted each year to consumer problems and management and a consumer education thread being interwoven into all content areas. At the State level, inservice education for teachers has promoted consumer education.

In 1963, teachers were attempting to meet the needs of the disadvantaged and handicapped within their regular classes, but data about such students were not reported. At that time some teachers did not identify disadvantaged students and most teachers had little preparation for understanding their needs or how to adapt curriculum content and activities to motivate and provide successful experiences for disadvantaged students. Inservice activities at State conferences and countywide meetings were provided for several yars, and teacher education institutions arranged inner city experiences for student teachers.

Classes which were specifically designed to meet the needs of disadvantaged students served 184 secondary and adult students in 1968. Projects were initiated to serve families and individuals in their own homes and communities so that by 1972, over 3,000 adults improved their housing maintenance, food and nutrition, buying and management practices through these projects. Secondary teachers in areas designated as economically disadvantaged developed special activities to meet the needs of 152 disadvantaged students. It is estimated that similar activities will serve 6,500 secondary students and 7,500 adults by 1977.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

		1967–68 (fiscal year 1968)		1971–72 (fiscal year 1972)					
	1962–63 (fiscal year 1963) vocational home economics	Home economics useful employment (homemaking)	Homa economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	16,419	20,505	355	33,275	152		347		
Adult	7,589	6,055	499	14,445	3,303		1,893		4
Total	24,008	26,055	854	47,720	3,455		2,240		4

Cooperative Vocational Education

Enrollments in cooperative education programs have increased from 354 in fiscal year 1963 to 8,014 in fiscal year 1972—see chart, "Iowa Career Education Enrollment Trends." Increased emphasis is being placed on cooperative education at the postsecondary level, as instructors in most occupational areas become aware of the value of practical work experience coordinated with classroom instruction. Instead of alternate half-days in school and at work, many postsecondary programs feature full-time work experiences ranging from a few weeks to one quarter.

Work Study Programs

Enrollment information is provided in the chart, "Iowa Career Education Enrollment Trends." Growth has been limited to date, increasing from 186 in fiscal year 1968, to only 259 in fiscal year 1972. The slow growth was influenced by two factors: (1) The delay in the appropriation of part H funds from the 1968 amendments to the Vocational Act of 1963, and (2) the restrictions on the amount of compensation per student require many students to still seek other employment in order to be able to continue in school. When the work-study program was designed, in the mid-1960's, the relatively low compensation—$45 per month—$350 per year may have been sufficient for the low-income high school student who still received some parental support. Today, however, with increasing educational costs, and the tendency of many postsecondary students to utilize the work-study program to assist in defraying tuition and related expenses; the nominal compensation is insufficient to provide the additional income necessary for the student to maintain his education. In several instances, schools exploring different alternatives of student financial aid have rejected work-study programs because of the inadequate student compensation.

In spite of its limitations, the program has been of value to participating students as well as benefiting the schools and other nonprofit agencies who served as employers. Many students remained in school who otherwise would probably have dropped out to seek full-time work. Work-study students also received valuable work experience and learned skills which might apply to their career goals. Simultaneously, the employing agencies received services that otherwise would not have been available.

Research and Training

Part C funds for research have provided support for numerous projects in Iowa over the past 10 years. With few exceptions, the projects have been conducted by university personnel under contract with the Iowa Department of Public Instruction.

Initially the majority of the research efforts in Iowa were manpower studies in selected occupational areas. After an interim period of no research activities, new priorities were established; and as a result, research endeavors of late have been directed toward statewide manpower surveys and curriculum development.

Discretionary research funds from the U.S. Commissioner have been instrumental in providing support for extensive projects of an exemplary nature in career education. These projects have provided developmental activities for instructional integration of and supportive materials for the career education concept in grades K–12 and have provided means for offering workshops for inservice teacher education.

Two illustrative research projects are a four component statewide manpower survey and an interstate distributive education curriculum study.

The statewide manpower survey, conducted by Department of Public Instruction personnel, consists of four components: labor demand, labor supply, student interests, and student outcomes.

The labor demand component surveyed 5,300 businesses and industries in Iowa which represented a wide variety of occupations requiring less than a baccalaureate degree, were of differing firm size, and were located in various geographical areas. Ascertained from this stratified survey of firms were data pertaining to current employment, current and future demand, and number of workers trained through inplant programs.

The statewide labor supply component obtained training output data from government sponsored programs and from private occupational training institutions indicating the number of individuals potentially available for work who are now undertaking career education preparatory programs. Additional data were collected from the Iowa Employment Security Commission in regard to individuals seeking employment.

The student interest survey ascertained, through a representative geographical area random sample, the occupational choices, certainty of choice, and future plans after high school of 15,000 Iowa junior and senior high school students.

The final component consisted of a 3-year student followup survey administered by 12 randomly selected secondary and area schools who contacted graduates and terminees from preparatory career education programs conducted 3 years previously. The survey ascertained the extent of employment in the field for which trained and the value of the program in preparation for that field.

A culminating activity of the four components was to merge their resultant data into an interfacing report form. The interface provides a base for evaluating career education program effectiveness and provides a guide for modifying, expanding, or eliminating present programs and a guide for adding new programs.

In another significant research effort, the Department of Public Instruction entered into an 11 State curriculum consortium project to develop and field test learning activity packages for instruction in distributive education.

Responsibility for the development of the learning activity packages has been divided among the 11 States. The University of Northern Iowa is under contract with the Iowa Department of Public Instruction to conduct the Iowa portion of the project.

The learning activity packages are being developed with emphasis on large group, small group, and individualized instruction and are using previously researched and validated distributive education competencies as a base for package content.

As a participant in the consortium, all of Iowa's secondary and postsecondary coordinators of distributive education will receive one complete set of the learning activity packages. Many of these coordinators attended inservice training workshops conducted by the University of Northern Iowa and were actively engaged in the writing and field testing of selected packages.

State Advisory Council

The major contributions of the Iowa Career Education Advisory Council are primarily related to the recommendations made as a result of their annual evaluation.

Although created by the 1968 Amendments to the Vocational Education Act of 1963, the first report of the Iowa Advisory Council was not received until fiscal 1970. At that time, five major areas of concern were cited, all of which have since sparked activities which have improved the situation. Three of these concerns are of sufficient significance to merit inclusion in this report.

1. *Lack of quantity and quality in statistics on manpower needs.*—This concern, and the subsequent strong support of the advisory council has helped trigger the development of the career education needs information system (CENIS). The labor demand component of CENIS gathers information on area and statewide manpower

needs. When the complete system becomes fully operational, decision-makers can inspect the interface of data and review information by occupation, clusters, or course areas relating to labor demand, labor supply, student interests, and follow-up results.

2. *Lack of stress on prevocational programs.*—Planning for pre-career education programs, services, and activities was begun during fiscal year 1970. Additional impetus occurred with the channeling of part D, exemplary program funds into the development of pre-career projects. Currently, a variety of career awareness and exploration programs are in progress throughout Iowa with plans for publication of materials, methods, and techniques resulting from the initial projects for adaptation by the other elementary, junior high, and secondary schools.

3. *Need for coördination of various levels concerned with vocational education.*—Many different efforts have been developed with the goal of improving articulation between secondary and postsecondary vocational programs. When the former vocational education division was restructured as the career education division, the separate program areas were organized into the elementary-secondary and post-secondary sections. Activities of these sections are coordinated by the career education director, in cooperation with the director of the area schools division. Further linkages are being achieved as the various area vocational schools and community colleges work co-operatively with the local school districts within their respective areas to develop plans for joining resources in providing awareness, exploratory, and preparatory programs to meet the identified needs of individuals and communities.

Summary and Recommendations

Federal funds have provided the impetus for dramatic growth in vocational-techinical programs, services, and activities within the last decade, at all instructional levels, that is, secondary, postsecondary, and adult. All of the occupational areas have experienced expansion, but with considerable variation as to the rate of growth.

Federally-funded special programs have allowed much greater scope and concentration of services to specific target groups such as minorities, disadvantaged, and residents of depressed areas. Work-study programs have helped many students continue their education, while cooperative education programs have added relevance by permitting on-the-job experience for the student and obtained employer involvement in the educational process.

Other achievements include the refining of the planning and evaluation processes, as well as the development of a comprehensive, sophisticated information system. Enrollment, financial and instructional information is now gathered several times annually, computerized, and is retrievable for an almost unlimited variety of analysis reports. Data on labor demand, other factors of training output, student interest, and follow-up are produced and interfaced through the career education needs information system (CENIS).

One of the greatest affecting factors in the rapid growth of vocational-technical education has been the creation and expansion of the Iowa Area School System. Area schools were authorized by the 61st General Assembly in 1965. All of Iowa's 99 counties are encompassed in the 15 merged areas. Eleven of the areas are community colleges (offering both college parallel and vocational courses) while the remaining four are solely vocational in nature. Instructional programs in most of these schools are offered by three major divisions: (1) Adult education, providing programs for the great majority of part-time programs, and featuring adult basic education; high school completion; supplementary; college parallel for part-time students, and continuing education. (2) Career education, providing preparation for immediate employment in a wide variety of careers with training length varying from 12 weeks to 2 years. (3) College parallel, providing courses that may be transferred to other colleges and universities as the equivalent of the first 2 years of a 4 years program, and career-option programs that may be transferred or may lead to immediate employment.

Suggested improvements in Federal programs include the following:

(1) Earlier congressional action in each session regarding appropriations and allocations of funds to the States,

(2) Earlier notification and receipt of new Federal guidelines,

(3) Strengthened Federal-State communications so that Federal funds can have more timely impact upon locally identified needs,

(4) Aditional Federal funds to improve and expand regular programs; to strengthen and increase services to target populations; to adapt and coordinate methods and materials for providing awareness and exploratory services which are resulting from the various exemplary and research programs now in operation; to provide more in-service teacher training; and to finance additional needed research and development projects.

The Better Schools Act of 1973 includes many valuable concepts and methods. However, input should be sought from the chief State school officers of each of the 50 States, so that local problems of administration and implementation can be considered and reflected in the final legislation.

Moneys appropriated under this act should supplement rather than supplant the funds currently available through the various acts pertaining to vocational education.

IOWA CAREER EDUCATION ENROLLMENT TRENDS

Career education programs, services, and activities	Fiscal year 1963 (actual)					Fiscal year 1968 (actual)					Fiscal year 1972 (actual)					Fiscal year 1977 (projected)				
		Postsecondary					Postsecondary					Postsecondary					Postsecondary			
	High school	Area schools	Technical institutions	Adult support	Total	High school	Area schools	Technical institution	Adult support	Total	High school	Area schools	Technical institution	Adult support	Total	High school	Area schools	Technical institution	Adult support	Total
I. Occupational Areas					65,391					87,369					133,442					202,325
01. Agriculture	10,587	0	0	15,593	26,180	10,987	274	0	17,897	29,158	13,127	1,159	(1)	15,527	29,813	(2)	(2)	(1)	(2)	38,000
04. Distributive Occupation	535	0	0	1,419	1,954	1,087	245	0	1,855	3,187	1,580	640	(1)	2,116	4,336	(2)	(2)	(1)	(2)	8,500
07. Health Occupation	0	216	0	82	298	0	1,227	0	539	1,766	0	5,024	(1)	6,406	11,430	(2)	(2)	(1)	(2)	16,550
14. Office Occupation	0	0	0	0	0	608	947	0	2,734	4,289	850	2,758	(1)	8,337	11,945	(2)	(2)	(1)	(2)	17,800
16. Technical Occupation	204	221	190	1,098	1,713	174	1,025	0	487	1,686	0	1,018	(1)	435	1,453	(2)	(2)	(1)	(2)	6,000
17. Trade and Industry	1,710	0	0	9,528	11,238	2,181	1,469	19	16,200	19,869	3,215	5,089	(1)	16,201	24,505	(2)	(2)	(1)	(2)	00 51,322
Total	13,036	437	190	27,720	41,383	14,983	5,187	0	39,712	59,955	18,722	15,688	(1)	49,022	83,482	35,000	28,825	(1)	73,500	137,305
II. Disadvantaged Students	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)		(2)	(2)	(1)	(2)						
A. Regular	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)		(2)	(2)	(1)	(2)	373	500	3,000	(1)	0	3,500
B. Special Needs	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)		(2)	(2)	(1)	(2)	14,092	5,500	45,000	(1)	600	51,100
Total	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	845	(2)	(2)	(1)	(2)	14,465	6,000	48,000	(1)	600	54,600
III. Handicapped Students																				
A. Regular	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)		(2)	(2)	(1)	(2)	32	300	1,000	(1)	0	1,300
B. Special Needs	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)		(2)	(2)	(1)	(2)	2,224	3,000	30,500	(1)	0	33,500
Total	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)		(2)	(2)	(1)	(2)	2,256	3,300	31,500	(1)	0	34,008
IV. Consumer and Homemaking education																				
09.01 Useful	16,419	(2)	(2)	7,589	24,008	20,505	0	0	6,055	26,560	33,275	0	(1)	14,445	47,720	38,500	0	(1)	19,500	58,000
09.01 Disadvantaged	(2)	(2)	(2)	(2)	0	102	0	0	82	184	152	0	(1)	3,303	3,455	6,500	0	(1)	7,500	14,000
09.01 Handicapped	(2)	(2)	(2)	(2)	0	0	0	0	0	0	0	4	(1)	0	0	0	0	(1)	0	0
09.02 Gainful	(2)	(2)	(2)	(2)	0	355	47	16	436	854	347	308	(1)	1,585	2,240	(2)	0	(1)	0	7,000
Total	16,419	(2)	(2)	7,589	24,008	20,676	47	16	6,491	27,414	33,622	308	(1)	16,030	49,960	38,500	0	(1)	19,500	65,000
V. Cooperative education	354	(2)	(2)	(2)	354	808	0	0	0	808	(2)	(2)	(1)	(2)	8,014	11,000	8,500	(1)	0	19,500
VI. Work-study programs	(1)	(2)	(2)	(2)	(2)	177	9	0	0	186	139	120	(1)	(2)	259	1,000	1,050	(1)	0	2,050

[1] Not applicable.
[2] Information not available.

APPENDIX A

The tax effort of a local agency will be represented by the ratio of local revenues to local wealth for the agency. Local revenues will be the local revenues received by the educational agency and local wealth will be the assessed valuation for taxing purposes within the district, and compared with state average.

Data concerning local revenues and local wealth are updated annually.

3.26 *Criteria for Determining Relative Priority of Local Applications.*—The State Board will determine the relative priority of local applications and the relative priority of career education programs, services, and activities for each of the population groups referred to in 3.15 of the State Plan in terms of the criteria specified in 3.26–1 through 3.26–5 of the State Plan. For purposes of securing reasonable manpower information, the state will be divided into not more than 16 regions or areas.

3.26–1 Manpower Needs and Job Opportunities: In allocating funds among local educational agencies, the State Board will give due consideration to information regarding current and projected manpower needs and job opportunities, particularly new and emerging needs and job opportunities.

The State Board will give particular consideration to those local educational agencies whose proposed career education programs are best designed to fulfill current or projected manpower needs in existing occupations at the local and state level or to fulfill new and emerging manpower needs at local, state and national levels.

The manpower needs and job opportunities will be identified annually through research and surveys conducted by the research unit of the Planning and Support Services Section, State Employment Service, any other State agencies so involved, and the advice of the State Advisory Council.

The evaluations of the State Advisory Council, the Career Education Division Staff, and the local advisory committee will be used. Placement of graduates and the reactions of graduates to their training will be reviewed in light of changing occupational patterns.

The annual review of the regional employment predictions will be checked in light of the annual reports from the State Employment Service.

3.26–2 Career Education Needs: In allocating funds among local educational agencies, the State Board will give due consideration to the relative career education needs of all the population groups referred to in 3.1 of the State Plan in all geographic areas and communities in the state, particularly disadvantaged persons and handicapped persons. The State Board will identify the career needs, including the need for special career education programs, services, and activities for disadvantaged and handicapped students through surveys, studies conducted by local agencies, appropriate sections of the Career Education Division, state agencies and other pertinent sources. In identifying these needs, consideration will be given to the state and communities of how they relate and their relationship to the necessary input and output of vocational trained personnel; to the capabilities of the various applying educational institutions to provide the occupational training needed, and to the long-range projections in light of information regarding current and projected manpower needs and job opportunities.

Periodic evaluations will be conducted by local educational agencies and State staff to determine, insofar as possible, if the local educational agency is in fact meeting the identified career education needs.

3.26–3 Relative Ability to Pay: In allocating vocational funds among local educational agencies, the State Board will give consideration to the relative ability of the local educational agencies to provide the resources necessary to meet the career needs in the area. Due consideration will be given to depressed areas with high rates of unemployment, designated by Employment Service, U.S. Department of Commerce and State Office of Economic Opportunity. Relative ability to pay will be determined on the basis of a "wealth-per-student" factor. This factor will be computed on assessed property valuations for local tax purposes on an enrollment basis; the data being updated annually by the Administration and Finance Division of the State Department of Public Instruction.

3.24–4 Relative Costs of Programs, Services, and Activities: In allocating funds among local educational agencies, the State Board will give due consideration to the cost of the programs, services, and activities these local educational agencies provide which is in excess of the cost which may be normally attributed to the cost of education in such local education agencies. Data concerning the cost of education on an average daily attendance basis for each school district is available in the State Department of Public Instruction. The source of these data is in annual financial and statistical report filed by the local educational agency. Primary consideration will be given to unusual costs or costs of a special nature for the career education program or service which is not considered to be a normal cost of education.

3.26–5 Other Criteria of the State. Does not apply.

3.27 Application of Criteria in Determining the Relative Priority of Local Applications educational agencies to support the cost of career education programs.

The local educational agencies will be ranked according to the assessed valuation per student in the area and/or K through twelve to determine criteria score.

3.27–14 Excess Costs: The weighting procedure will consider the variation in cost programs in all areas based on the following:

Construction costs
Equipment costs
Wage costs
Unusual costs to program—transportation, rent

The local educational agencies will be given weight in terms of the above to determine criteria score.

3.27–1 The State Board will consider the following criteria in allocating Federal funds to local educational agencies:

Manpower needs and job opportunities
Population needs
Relative ability to pay
Excess costs

The specific criteria and the weighting procedures are described in the following material:

Criteria:	*Possible Points*
Manpower needs	20
Population needs	40
Relative ability to pay	20
Excess costs	20

Each of the merged areas (not more than 17) will be weighted for each criteria from which a state average for each criteria will be determined. After each merged area has been weighted for each criteria and assigned total points, a state average for total points will be determined. The spread from the low point below the average to the high point above the average will be quartiled with a possible 20% reimbursement differential from high to low. This will allow 5% variations per quartile for reimbursement.

Each application will be weighted and the allocated points will determine priorities.

3.27–11 Manpower Needs: The weighting procedure will encourage career education programs that meet the manpower objectives in the state according to the following criteria:

Meeting the needs based on employment expansion
Producing skilled manpower in areas of high manpower need
Meeting a higher percentage of the total labor market demand

Local educational agencies will be given weight according to the manpower needs being met to obtain criteria score.

3.27–12 Population Needs: The weighting procedure will encourage local educational agencies to meet the population needs for career education. Local educational agencies will be weighted on each of the following needs to obtain criteria score:

Secondary needs
Postsecondary needs
Disadvantaged needs
Handicapped needs

3.27-13 Ability to Pay: The following will reflect the ability of local dept. supply.

3.26 Criteria for Determining Priority of Local Applications. The State Board will act upon local applications for career education program, services, and activities presented to them by the Career Education Division. The Career Education Division will have, prior to submitting to the State Board, reviewed each application for each of the population groups referred to in 3.15 of the State Plan in terms of the criteria specified for 3.26–1 through 3.26–5 of the State Plan. The State is currently divided into 15 merged areas and the manpower information is collected by these areas.

3.26–1 Manpower Needs and Job Opportunities: In allocating funds among local educational agencies, the State Board will give due consideration to information regarding current and projected manpower needs and job opportunities, particularly new and emerging needs and job opportunities.

The State Board will give particular consideration to those local educational agencies whose proposed vocational education programs are best designed to fulfill current or projected manpower needs in existing occupations at the local and state level or to fulfill new and emerging manpower needs at local, state and national levels.

The manpower needs and job opportunities will be identified annually through CENIS (Career Education Needs Information System) conducted by the Career Education Division. Further input will be provided by State agencies such as the Iowa Employment Security Commission through their annual report of ***Occupational Requirements for Vocational Education***, and recommendations of the State Advisory Council through their annual evaluation report.

The evaluation of the State Advisory Council, the Career Education Division staff and the local advisory committees will be used. Placement of graduates and the reaction of graduates, obtained through the three-year follow-up component of CENIS, to their training, will be reviewed, considering changes in occupational patterns.

The annual review of the regional employment predictions will be checked with the annual reports from the State Employment Service.

3.26–2 Population Needs: In allocating funds among local educational agencies, the State Board will give due consideration to the relative career education needs of all the population groups referred to in 3.1 of the State Plan in all geographic areas and communities in the state, particularly disadvantaged and handicapped persons. The State Board will identify the career needs, including the needs for disadvantaged and handicapped students through surveys, studies conducted by local agencies, appropriate sections of the Career Education Division, state agencies, and other pertinent sources. In identifying these needs, consideration will be given to the state and communities of how they relate and their relationship to the necessary input and output of vocationally trained personnel; to the capabilities of the various applying educational institutions to provide the occupational training needed; and to the long-range projections in light of information regarding current and projected manpower needs and job opportunities.

Periodic evaluations will be conducted by local educational agencies and State staff to determine, insofar as possible, if the local educational agency is in fact meeting the identified career education needs.

3.26–3 Relative Ability to Pay: In allocating vocational funds to local educational agencies, the State Board will give consideration to the relative ability of the local educational agencies to provide the resources necessary to meet the vocational needs in the area. Due consideration will be given to depressed areas with high rates of unemployment, designated by Employment Service, U.S. Department of Commerce, and Iowa Revenue Service low income data. Relative ability to pay will be determined on the basis of a "wealth-per-student" factor. This factor will be computed on assessed property valuations for local tax purposes on an enrollment basis; the data being updated annually by the Administration and Finance Division of the State Department of Public Instruction.

3.26–4 Relative Costs of Programs, Services, and Activities: This criteria is not used in Iowa for the secondary school districts because a uniform accounting system is not required. Therefore, information is not available in a form that will provide a means of obtaining excess costs.

The area schools are required to use a uniform accounting system, and the information provided is used to assist in determining excess costs.

In allocating funds to local educational agencies, this consideration is given to the cost of the programs, services, and activities these local educational agencies provide which is in excess of the cost which may be normally attributed to the cost of education in such local educational agencies. Data concerning the cost of education on an average daily attendance basis for each school district are available in the State Department of Public Instruction. The source of these data is an annual financial and statistical report filed by the local educational agency. Primary consideration will be given to unusual costs or costs of a special nature for the career education program or service which is not considered to be a normal cost of education.

3.26-5 Other Criteria of the State: Does not apply.

3.27 *Application of Criteria in Determining the Relative Priority of Local Applications.*

3.27-1 The State Board will consider the aforementioned criteria in allocating Federal funds to local educational agencies.

Each of the merged areas and secondary school districts will be weighted

3.27-11 Manpower Needs and Job Opportunities: The weighting procedure for each criteria will encourage vocational education programs that meet the manpower objectives in the state according to the following criteria:

Meeting the needs based on employment expansion
Producing skilled manpower in areas of high manpower need
Meeting a higher percentage of total labor market demand

Local educational agencies will be given weight according to the manpower needs being met to obtain criteria score.

3.27-12 Population Needs: The weighting procedure will encourage local educational agencies to meet the population needs for vocational education. Local educational agencies will be weighted on each of the following needs to obtain criteria scores:

Secondary needs
Postsecondary needs
Disadvantaged needs
Handicapped needs

3.27-13 Relative Ability to Pay: The following will reflect the ability of local educational agencies to support the cost of vocational education programs.

The local educational agencies will be ranked according to the assessed valuation per student in the area and/or K through twelve to determine criteria score.

3.27-14 Relative Costs of Programs, Services, and Activities: The weighting procedure will consider the variations in cost of programs in all areas based on the following:

Construction costs
Equipment costs
Wage costs
Unusual costs to programs—transportation, rent

The local educational agencies will be given weight in terms of the above to determine criteria score.

3.27-15 Procedures: for Ranking; Standard scores will be used to determine ranking of merged areas and secondary school districts. Using standard scores will make scores directly comparable across all criteria; and by adding a district's scores on each of the four criteria, a total score will be obtained which will accurately reflect that district's position relative to other districts.

Standard scores will be obtained in the following manner:

1. Raw data will be gathered for each criterion for each district.
2. For each criterion, a summary score would be obtained for each district.
3. For each criterion, a mean and standard deviation would be computed. The mean would be computed using the formula:

$$\mu = \frac{\Sigma X}{N}$$

where

μ is the mean of the criterion scores for all districts
ΣX is obtained by adding the creiterion scores for all districts
N is the number of districts

Therefore, the standard deviation would be computed using the formula:

$$\sigma=\sqrt{\frac{\Sigma(X-\mu)^2}{N}}$$

The mean (μ), obtained above, would be subtracted from the criterion score for a given district. That quantity is squared. The process is repeated for each district, subtracting and squaring. The scores are then summed for all districts. The total is divided by N (the number of districts) and the square root computed.

4. When the mean and the standard deviation are calculated, the standard scores can be obtained by:

$$Z=\frac{X-\mu}{\sigma}$$

where

Z is standard score on a given criterion for a district
X is the raw score for that district on the criterion measure
μ is the mean of all districts on the criterion
σ is the standard deviation for all districts on the criterion

Computed Z scores for each criterion will average zero "0" and range from about (−3) to about (+3). To avoid negative numbers and decimal points, standard scores can be transformed. To have scores that would average 10, and have a standard deviation of 3 and range from about 1 to 20, compute for each district on a given criterion:

$$L=10+3Z$$

using Z, the standard score obtained above.

Using this procedure, categories may be weighted as desired. Thus, if all categories are to be weighted equally, L would be computed the same way for each criterion. However, if one criterion were to be weighted double, it could be computed using the formula:

$$L_{pa}=20+6Z$$

KANSAS

State Director—John E. Snyder

INTRODUCTION

The Educational Structure in Kansas

The higher education system in Kansas includes three State-supported universities and three State colleges, one municipal university at Topeka, and 17 church-supported colleges and universities throughout the State. These denominational schools tend to be small liberal arts colleges with an average enrollment of approximately 1,000 students or less. The 24 State and private colleges and universities in Kansas enrolled 74,676 students in the fall of 1971.

There are 19 public community colleges, one operated by the Bureau of Indian Affairs, and five church-supported junior colleges in Kansas. In the fall of 1971, the 19 public community colleges enrolled a total of 15,752 students. The five church-related junior colleges enrolled a total of 1,472 and the Haskell Indian Junior College enrolled 1,128 indian students. All of these are postsecondary students.

There are 14 area vocational-technical schools that offer vocational education for both high school and postsecondary students. In 1972, these 14 schools enrolled 7,615 high school students and 4,738 postsecondary students. Depending on the population of the attendance area, the number of programs offered in these schools varies from 11 to 38. The average number of programs is 17.

The Vocational Technical Institute, a division of the Kansas State College of Pittsburg, offers 10 programs in trade and industrial education, and the Kansas Technical Institute at Salina offers seven high-level engineering technology programs. Both of these institutions are for postsecondary students and are State supported.

There are 311 unified school districts in Kansas. These unified districts offered 339 programs of vocational education for high school students in 1972. Agriculture and home economics predominates among these programs and reflects the rural nature of many of these high schools.

The problem of providing equal access to vocational education for all students is always difficult in States that have a relatively small population spread over a relatively large land area. In Kansas, this problem is especially critical at the secondary level.

In spite of diligent efforts to unify local districts, the low population density in some parts of the State still requires many high schools with comparatively small enrollment. Data reported by the

Kansas State Department of Education on enrollments in public high schools are shown in table I.

TABLE I.—*Enrollment in Kansas High Schools*

	Number of schools
Student enrollment:	
99 or less	99
100 to 199	113
200 to 299	57
300 to 499	53
500 to 799	25
800 to 999	7
1,000 to 1,999	23
2,000 or more	11

Source: "Selected School Statistics," January 1971—Kansas State Department of Education.

These data show that approximately one out of four public high schools in Kansas enrolls less than 100 students and approximately one out of two public high schools has less than 200 students. It is not economically feasible to provide much diversity of offerings through the traditional pattern of vocational education in schools of less than 200 students.

A partial answer has been the area vocational-technical school which can serve a combination of these small high schools, but many areas of the State are not yet included in a district of this type. A second approach has been the development of diversified or cooperative programs supervised by a local coordinator, but here again, the number of these programs at the present time, is not sufficient to meet the needs of all students. In 1972, 339 vocational programs were offered in the unified school districts of Kansas.

Growth in Vocational Enrollments

There has been continued growth in the number of vocational programs and enrollments among the Kansas schools in the last decade.

Data abstracted from the State reports to the U.S. Office of Education show the following total public school enrollments in vocational education.

TABLE II

	Secondary	Postsecondary	Adult[1]	Total
Fiscal year:				
1963	18,866	1,713	16,766	37,345
1968	24,794	3,065	29,374	57,233
1972	46,055	8,964	45,800	100,819
1977[2]	61,147	14,159	65,944	141,250

[1] Includes full-time and part-time adult enrollments.

[2] Based on a straight line projection of the average growth in enrollment from 1963 through 1972.

In addition to the vocational programs offered in the public schools of the State, the Kansas Technical Institute offers 7 engineering technology programs for postsecondary students. This school is entirely State supported and was started in 1966. In 1968 this school enrolled 186 students and 326 in 1972.

Other vocational programs administered by the Kansas Division of Vocational Education and sponsored jointly with other Federal agencies are:

1. *MDTA* programs including skill centers, G.E.D., basic education and employability training.
2. *Correctional Training* offered for inmates of the reformatories and penitentiaries in Kansas.
3. *Project Transition* operated in cooperation with the U.S. Army at Fort Riley, Kans. The purpose of this project was to facilitate the transition of Vietnam veterans from military to civilian life.
4. *Forbes Skill Center* operated at Forbes Air Force Base, Topeka in cooperation with the U.S. Air Force. The purpose of this project was to provide veterans with salable skills prior to discharge.

Programs of this type are based on demand and comparisons between years are not very meaningful. In fiscal year 1968 and fiscal year 1972, these programs reported the following enrollments of adults. These are in addition to the enrollments reported in table II.

Type of program	Fiscal year	
	1968	1972
MDTA	795	819
Correctional training		265
Project transition		1,481
Forbes skill center		2,300

STATE VOCATIONAL EDUCATION PROGRAMS

(2) P.L. 90-576 PART B

a. Job Training Enrollments

Reports from the division of vocational education in Kansas to the U.S. Office of Education show the following enrollments for fiscal year 1963, fiscal year 1968 and fiscal year 1972.

Estimates for fiscal year 1977 have been made by a straight line projection based on the average yearly growth. Where unusual circumstances have interrupted the continuity of the data, modifications have been made to this procedure to provide the best judgment available on the estimate.

Comparisons of these data must be made with some caution. Changes in the reporting forms by the U.S. Office of Education do not produce data that are strictly comparable from one year to another. The refining of definitions for various programs and services have shifted some enrollment from one category to another. For example, in fiscal year 1963 data processing enrollments were reported under Technical Occupations. Between fiscal year 1968 and fiscal year 1972, these enrollments were shifted to Office Occupations. This resulted in a decline in Technical enrollments and an increase in Office Occupations. These data can be used to identify trends but should not be regarded as precise.

With these restrictions, the following enrollment data by service are submitted.

Fiscal year	Secondary	Postsecondary	Adult	Total
		Agriculture		
1963	6,216		988	7,204
1968	6,854	95	1,521	8,470
1972	8,793	365	1,052	10,210
1977	10,226	702	1,265	12,193
		Distributive		
1963	295	73	4,745	5,113
1968	1,262	176	5,004	6,442
1972	2,352	529	3,959	6,840
1977	3,496	783	4,147	8,426
		Health occupations		
1963		177	466	643
1968		352	747	1,099
1972	54	1,058	278	1,390
1977	([1])	1,548	311	1,859
		Consumer education and homemaking		
1963	9,955		751	10,706
1968	11,861	[2] 14	4,512	16.387
1972	25,276		3,563	28.839
1977	33,794		5,909	39.703
		Office occupations		
1963	183	60	340	583
1968	1,790	516	2,016	4,322
1972	4,029	2,457	5,606	12,092
1977	6,167	3,790	10,558	20,515
		Technical occupations		
1963	263	995	674	1,932
1968	292	512	1,190	1,994
1972	56	444	366	866
1977	([3])	666	449	1,115
		Trade and industrial		
1963	1,954	408	8,802	11,164
1968	2,765	1,400	14,384	18,549
1972	5,495	4,111	30,976	40,582
1977	7,464	6,170	43,305	55,939

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[1] It is the policy of the division of vocational education to place health programs at the postsecondary level whenever possible.

[2] The consumer education and homemaking division has emphasized the development of quality programs at the secondary and adult levels. There is concern for expanding the program into the postsecondary level but the funds and personnel have not been available.

There is a substantial number of home economics programs in community colleges, but these are college transfer programs.

[3] It is the policy of the division of vocational education to offer technical education programs at the postsecondary level whenever possible.

b. General Description

There has been substantial growth in both the number of vocational programs and the enrollment of students over the past 5 years in Kansas. The following tables show the enrollment for fiscal year 1968 and fiscal year 1972 and the percentage change which the difference in the enrollments for these 2 fiscal years represents using fiscal year 1968 as a base.

SECONDARY ENROLLMENT TRENDS

Service	Fiscal year 1968	Fiscal year 1972	Percent change
Agriculture	6,854	8,793	+28
Distributive	1,262	2,352	+86
Health occupations	[1]		
Home economics	11,861	25,276	+113
Office occupations	1,790	4,029	+125
Technical occupations	292	56	(−81)
Trade and industrial	2,765	5,495	+99
Total	24,824	46,001	+85

[1] It is the policy of the Division of Vocational Education to place health programs at the postsecondary level whenever possible.

The decrease in technical occupations at the secondary level was the result of a State division of vocational educational policy to move technical education to the postsecondary level whenever possible. The average growth per year in secondary vocational enrollments was approximately 17 percent per year.

POSTSECONDARY ENROLLMENT TRENDS

Service	Fiscal year 1968	Fiscal year 1972	Percent change
Agriculture	95	365	+284
Distributive	176	529	+201
Health occupations	352	1,058	+201
Home economics			
Office occupations	516	2,457	+376
Technical occupations	512	444	(−13)
Trade and industrial	1,400	4,111	+194
Total	3,051	8,964	+194

Postsecondary vocational education was the fastest growing category from a percentage standpoint.

The decline in technical occupations was the result of the two factors. First, certain types of courses were started by technical education and later transferred to other services. For example, automated data processing classes were reported as a part of technical education in fiscal year 1968 and as a part of office occupations in fiscal year 1972.

Secondly, there has been a continuing effort on the part of the division of vocational education to clarify the definition of technical education and to transfer programs which do not meet the established criteria to other appropriate services. This has resulted in a smaller enrollment in programs which are more truly representative of technical education.

The average enrollment growth in postsecondary vocational education has been approximately 39 percent per year.

ADULT ENROLLMENT TRENDS

Service	Fiscal year 1968	Fiscal year 1972	Percent change
Agriculture	1,521	1,052	−31
Distributive	5,004	3,959	−21
Health occupations	747	278	−63
Home economics	4,512	3,563	−21
Office occupations	2,016	5,606	+178
Technical occupations	1,190	366	−69
Trade and industrial	14,384	30,976	+115
Total	29,374	45,800	+56

Adult enrollments have shown a growth of about 11 percent per year although all of the services have not shared equally in this expansion.

In general, the Division of Vocational Education in Kansas tends to fund on-going programs at the secondary and post-secondary level first and to set the adult vocational budget after these other needs have been made.

In fiscal year 1972, it was necessary to curtail the adult budget and to reduce reimbursements to local districts for adult programs. As a result, all but two of the services showed a substantial decline in their adult enrollment.

Several factors contributed to the increase in Office Occupations and Trade and Industrial Education. These two services have most of their programs in the metropolitan centers where more local money was available for classes and where local supervision was available to promote and supervise adult classes.

Further, programs of these services tend to be centered in the area vocational-technical schools which were funded by a different method and were not subject to some of the restrictions of the regular adult budget.

The expansion of adult vocational enrollments in Trade and Industrial Education was aided by the training program for new and emerging industries in Kansas. Under this program, a percentage of vocational funds was set-aside for the training of employees for new industries planning to locate in Kansas. Almost all of the programs involved were adult trade and industrial education.

Some of the programs that have received special attention in the past 5 years are those in agriculture where the emphasis has shifted to agribusiness in addition to the traditional agriculture production programs. Some of these are ornamental horticulture, feed lot management and forestry.

In home economics there has been new emphasis on occupational preparation. New programs in food management, production and service and child care aides have been initiated.

In the health occupations, programs for dental hygienists, dental assistants, medical records technicians and medical secretaries have been added to the traditional nursing program.

In office occupations, new programs in data processing, accounting and computing, personnel supervision and administrative management have been developed.

In trade and industrial education, programs in law enforcement, small engine repair, heavy equipment operation and truck driving are new and/or expanding programs designed to meet the needs of young people in Kansas.

This enrollment summary suggests that the availability of facilities and funds is a greater determinant of growth in vocational education than any other one factor. In fiscal year 1972, the directors of the area vocational-technical schools reported that they turned away 2,352 applicants for lack of facilities and instructors. It is reasonable to assume that the same demand exists in other segments of the vocational education system.

c. Post-Secondary Courses

The growth in post-secondary enrollments has almost doubled in the last 4 years. Post-secondary students in Kansas are served primarily in 14 area vocational-technical schools and in 19 community colleges.

The records of the Division of Vocational Education show the following enrollments for fiscal year 1965, fiscal year 1968 and fiscal year 1972. Fiscal year 1965 has been used instead of fiscal year 1963 because this was the first year of operation for area vocational-technical schools. All 14 of the area schools were not completed until fiscal year 1968.

POSTSECONDARY ENROLLMENTS, PART B PROGRAMS

	Fiscal year		
	1965[1]	1968	1972
AVTS	888	2,412	4,738
Community colleges	1,264	1,971	4,216
Vocational Technical Institute[2]	277	269	329
Total	2,429	4,652	9,283

[1] First full year of operation for area vocational-technical schools.

[2] Operated as a division of Kansas State College, Pittsburg, Kans.

In addition, the Kansas Technical Institute, Salina, Kans., enrolls postsecondary students in technology programs. This school is State supported and does not participate in vocational reimbursement. It was started in 1966. In fiscal year 1968 it enrolled 186 students and 326 in fiscal year 1972. These enrollments are in addition to those shown on the previous page.

As with other segments of the educational system, postsecondary enrollments are restricted by the availability of funds and facilities. Neither the area vocational-technical schools nor the community colleges have sufficient resources to adequately meet the need for postsecondary vocational programs.

d. and e. Disadvantaged and Handicapped Students

Services to disadvantaged and handicapped students have grown rapidly since fiscal year 1968. These students were not reported in separate categories for fiscal year 1963 so no data are available for this year. In fiscal year 1968, disadvantaged and handicapped students were lumped into a single category of "people with special needs." Only fiscal year 1972 divides these persons and reports them under disadvantaged and handicapped categories. With these limitations, the following data on enrollments are submitted.

	Persons with special needs	Disadvantaged	Handicapped
Fiscal year:			
1963[1]			
1968	[2] 447		
1972		9,298	3,904
1977			

[1] No data available for this fiscal year.

[2] Reported only as persons with special needs in special projects in this fiscal year.

Although considerable progress has been made, much more remains to be done. The State advisory council for vocational education in its annual evaluation, estimated that only about 12 percent of the economically disadvantaged persons in Kansas were served in secondary, postsecondary, adult and manpower programs during fiiscal year 1972.

The following outline of programs planned and implemented for the disadvantaged and handicapped in fiscal year 1973 will describe the vocational education activities in Kansas for disadvantaged and handicapped persons.

Special Summer Work Adjustment Exploratory Programs for Disadvantaged Handicapped Youth.

These are 8-week programs for 15- and 16-year-old disadvantaged/handicapped youth. Program consists of 30 to 48 students identified as potential dropouts, disenchanted with school, unable to find summer employment, and may qualify for vocational work-study funds. Six different exploratory type of vocational programs are offered and each student selects four areas to explore. These classes are held for 2 hours each day and students spend 2 weeks in each selected area. Areas such as mechanics, welding, horticulture, nursing, business and office occupations, electronics, plastics, and many others are designed for hands-on experience by students and field trips and resource persons provide valuable exposure to different occupational and career opportunities. Students are provided jobs for three hours each day where minimum wage is paid either by an employer or through work-study funds. A work-adjustment coordinator is in charge or supervising the work component of the program. Students who do not attend the exploratory part of the program cannot work as a part of the program. These programs have been very successful, both in providing a basis for vocational choice and in developing motivation to stay in school. No credit or grades are given for this program. Nine programs serving 420 youths were operated in the summer of 1972. No applications for programs of this type have been turned down. The lack of work-study funds to support the 80 percent of the wages for students has restricted the expansion of these programs. A reduction in school year work-study programs will be necessary to allow an expansion of these summer programs.

In 1973, the following programs of this type were operated.

		Part B			
	Part A 102(b)	Disadvantaged	Handicapped	Part H work-study	Estimated enrollment
Derby	$6,850			$3,000	48
Winfield		$4,898		3,120	40
Liberal AVTS		7,153		6,700	48
Manhattan AVTS	7,903			6,700	48
Salina AVTS	6,574			6,700	48
Lawrence		10,605		6,700	20
Central Kansas AVTS-Hutchinson		7,574		3,450	20
Central Kansas AVTS-Newton		2,131		1,560	48
Topeka	24,207			3,226	125
Total	45,534	32,361		41,156	445

Special Vocational Programs for Handicapped Students.

These are vocational programs designed to provide services and special supplemental activities to allow those affected with a handicap to be successful in a vocational program or prepare for employment. These programs are funded as a planning grant to develop and design actual operable programs and are designed for 3 year descending funding. The program at the Girls Industrial School will be discontinued on June 30, 1973 and the program planned for Osawatomie State Hospital was not approved to operate in 1974. The program planned for Topeka State Hospital was not approved for funding due to supplanting of State funds. Applications and proposals for these funds are approved or disapproved in conjunction with special education section of the State department of education.

	Part A 102(b)	Part B		Estimated enrollment
		Disadvantaged	Handicapped	
Johnson County CJC (hearing)			$59,750	60
Salina AVTS (special education)			78,534	90
Olathe School for the Deaf			40,000	25
Kansas State School for the Blind (pending)			[1] 15,000	
Wichita State University (severely handicapped)			54,914	80
Girls Industrial School, Beloit (planning)		$3,143		
Girls Industrial School, Beloit (vocational program)			15,395	30
Osawatomie State Hospital (planning)			9,900	
Leavenworth (planning)			5,063	
Total		3,143	278,556	285

[1] Programs approved for 1973 but did not begin operation until late fiscal year 1973 or will operate in fiscal year 1974.

Specialized Programs for Disadvantaged/Handicapped Students.

These programs are addressed to solving some problems of special groups of persons or ancillary programs deemed necessary for the success of students in vocational education. They are programs designed to stand alone and not dependent on other vocational programs. Objectives are related to specific problems of helping disadvantaged/handicapped persons attain a vocational objective. Applications are evaluated on guidelines for use of disadvantaged/handicapped funds for such programs, ability to produce the result wanted, and the objective ways for measuring accomplishments.

	Part A 102(b)	Part B		Estimated enrollment
		Disadvantaged	Handicapped	
Lawrence (alternate school program)	$21,185	$28,571		120
Seaman (Indian project)		29,625		30
Powhattan (Indian project)	[1] 20,000			
Rossville (prevocational for disadvantaged/handicapped)	10,000			30
Pratt (home economic skills)	2,244			16
Kansas State Penitentiary (manpower)	25,446			12
Overbrook High School (developing individualized instruction)		4,265		
Total	78,875	62,461		208

[1] Programs approved for 1973 but did not begin operation until late fiscal year 1973 or will operate in fiscal year 1974.

Learning Skills Programs.

Vocational students may be identified as educationally disadvantaged if they cannot succeed in a vocational program due to low communication or computation skills. Special supplemental learning skills programs have been developed with vocational funds to help correct this deficiency. Programs operate at secondary and post-secondary levels as well as for adults. Accountability is measured by reading and math level scores. Applications are approved or disapproved on the basis of indicated numbers of students to be served and availability of cooperation with vocational teachers on the staff. Success of these programs depends to a large degree on the ability of the vocational instructor to provide motivation necessary for learning basic skills. General education's responsibility to provide this part of educational is considered in funding these projects.

	Part A 102(b)	Part B		Estimated enrollment
		Disadvantaged	Handicapped	
Garden City CJC	$25,010			90
Independence CJC	25,870			175
Liberal AVTS		$9,000	$3,990	140
Goodland AVTS		26,000		120
Manhattan AVTS		15,742		200
Atchison AVTS	32,722			60
Coffeyville AVTS		8,000	3,813	50
Columbus AVTS	25,579			100
Emporia AVTS		13,000	6,482	100
Dodge City AVTS		[1] 20,467	[1] 5,000	
Total	109,181	92,209	19,285	1,035

[1] Programs approved for 1973 but did not begin operation until late fiscal year 1973 or will operate in fiscal year 1974

Supplemental Vocational Program Activities for Disadvantaged/Handicapped Students.

The major amount of set aside part B funds for disadvantaged vocational students are allocated in this category. All supplemental activities are approved for operating in conjunction with an on-going vocational program. The services, materials, equipment, and activities are identified as being supplemental to what is done for regular students in vocational education programs. If the services are for teachers they represent skills necessary for assisting the disadvantaged/handicapped vocational student. Teacher aides, individualized instruction, special assistance for students, certain added services needed by disadvantaged/handicapped students and many other special supplemental things are included in this section. Vocational teachers, administrators and others are involved in developing and implementing these activities. Objectives include acceptance of more disadvantaged/handicapped students in vocational programs, to better meet their needs when accepted, and to provide flexibility needed in vocational programs to insure success of such students. The applications for supplemental services and activities are generally accepted after vocational programs start in order that the specific needs can be met. The nature of the services and activities provided requires annual evaluation and approval.

	Part A 102(b)	Part B		Estimated enrollment
		Disadvantaged	Handicapped	
Hill City (USA-VE) D/H Coordinator	[1] $25,023			
Kansas City, Kans. (exploratory vocational program)		$17,605		140
Columbus AVTS (auto mechanics assistant)	10,000			16
Coffeyville AVTS (auto mechanics class)		15,664		12
Goodland (special activities for D/H)		30,000	$8,870	110
Manhattan AVTS (individual instruction, business)		3,305	2,887	40
Manhattan AVTS (individual instruction, nursing)		4,276		30
Topeka AVTS (individual instruction)		4,869	2,000	60
Manhattan AVTS (coordinated occupational commission)	11,660	4,862		30
Salina AVTS (adult special instruction)		45,742		40
Independence CJC (institute for learning skills)		16,555		
Labette CJC (power flame employee training)		17,535		20
Shawnee Mission (developing individualized instruction—I.A.C.P.—Career education component)		11,892		90
Beloit AVTS (teacher aide)		7,680		16
Dodge City AVTS (suppl.)		2,075	5,830	70
Emporia AVTS (Suppl.)		2,786	1,363	40
Liberal AVTS (Suppl.)		537		30
Columbus AVTS (auto mechanics assistant)	10,000	330		20
Wichita AVTS		38,750	13,250	200
Salina AVTS		100	80	
Atchison AVTS		4,353	1,136	30
Goodland AVTS		24,870	14,000	110
Topeka AVTS		5,444	2,000	60
Manhattan AVTS (suppl. nursing)		4,191		30
Manhattan AVTS (power mechanic)		7,605		30
Garden City CJC			920	60
Dodge City CJC		495		
Independence CJC			240	
Unified school districts:				
Ness City		50		20
Seaman	5,575	1,505		30
Clifton		250		10
Onaga		118	92	10
Inman		200		20
Paola		342	108	40
Blue Mound		68	52	10
Altamont		558	993	80
Pratt		426	113	20
Fowler		63	112	10
Saint Marys		6,943	1,928	20
Russell		465		
Council Grove		502		10
Pittsburg		540		
Lyons		145		
Abilene		360		
Stockton		1,762		30
Shawnee Mission	3,721	1,160		80
Cherryvale		90		
Silver Lake		320		
McClouth		250	9,250	
Goodland		17,000	596	30
Total	65,979	304,638	65,820	1,704

[1] Programs approved for 1973 but did not begin operation until late fiscal year 1973 or will operate in fiscal year 1974.

WORK-STUDY PROGRAMS

	Part H—work-study	Estimated enrollment
Unified school districts		44
Area vocational-technical schools	$28,842	38
Community junior colleges		17
Total	28,842	99

Programs in 4-year Colleges.

These are vocational-related programs supported by vocational disadvantaged/handicapped funds to provide services to teachers or students. These programs require types of personnel or facilities not generally available at other places. Vocational teachers are involved in some of these programs and research capabilities are required. The K-VIEW project is vocational guidance related and a service utilized by disadvantaged/handicapped youth throughout the State. Applications for these programs usually originate from teacher educators or vocational teachers who identify specific problem areas as related to their jobs. Approval of applications is based on criteria in the State plan and decisions to approve or disapprove these programs is made in conjunction with the vocational supervisory staff.

	Part A 102(b)	Part B		Estimated enrollment
		Disadvantaged	Handicapped	
KSC Pittsburg:				
Criteria for identifying				
D/H students		$990		
New employee training (Boone)		11,762		28
Youth organization activities for disadvantage (Harris)	$23,220			200
Employee training for D/H adults (Vinylplex)		15,845		20
KSU Manhattan:				
Developing system for information for education and work (K-VIEW)		57,732		
Developing supplemental activities for D/H vocational agriculture students	4,000			
Total	27,220	$86,329		248

f. Adults

In compiling a response to this section, it has been necessary to make some assumptions because of the manner in which the data have been classified.

The data on adult enrollments are classified under "preparatory" and "supplementary." It has been assumed that adults in preparatory classes are unemployed and in need of job training, and those in supplementary classes are employed and in need of further education to upgrade themselves in their occupation.

With this understanding, the following data on adult enrollments are submitted.

	Preparatory	Supplementary
Fiscal year:		
1963	(1)	16,766
1968	2,257	27,117
1972	6,931	38,869

(1) None.

Programs using Federal manpower funds are preparatory adult programs and are compared below with adult preparatory programs funded from vocational funds.

	Preparatory adult programs [1]	Manpower programs [2]
Fiscal year:		
1963		
1968	2,257	955
1972	6,931	2,565
1977	12,773	4,668

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[1] Enrollments in preparatory adult programs funded with vocational education monies.

[2] Enrollments in adult programs funded with Federal manpower funds.

g. Financing

(i) Over the past 2 years the Kansas State Department of Education has developed computerized procedures for determining reimbursement to local districts. These procedures utilize a formula which develops a point rating for each program based on 14 criteria. A specified number of points is given for each criterion and each criterion carries a weighting factor so that those considered more important exert more influence on the final point rating of the program.

During fiscal year 1973, a field test of these criteria was made in unified school districts and community colleges. These criteria are:

Manpower Demand (each criterion weighted 6):

1. State manpower demand for each type of training program (maximum 40 pts.).
2. Local manpower demand for each program was there opportunity for employment in that community in the jobs students were being trained for (maximum 10 pts.).

Disadvantaged, Handicapped, Minority (each criterion weighted 3):

1. How many disadvantaged and handicapped students were enrolled in relation to the number expected based on census data (maximum 26 pts.).
2. How many minority students were enrolled in relation to the number expected based on census data (maximum 12 pts.).

Local Ability to Pay (each criterion weighted 3):

1. Adjusted valuation per student in relation to the State average (maximum 22 pts.).
2. How many vocational and technical education instructors (measured in FTE's: number of full-time equivalent instructors) were not certified and thus received no State foundation aid (maximum 20 pts.).
3. What was the degree of depression in the county as determined by the State Board (using data such as unemployment and school dropouts) (maximum 5 pts.).
4. What proportion of the adjusted general mill levy was for vocational education (maximum 15 pts.).

Excess Costs (each criterion weighted 1):

1. What were relative construction costs based on geographical location (highest costs in Topeka-Kansas City area, lowest in western Kansas) (maximum 10 pts.).
2. What was the ratio of the teacher salary factor (School Finance and Statistics data) for each district of similar size to the average for all districts in that size category (maximum 10 pts.).
3. What was the ratio of the district's transportation costs per pupil to the State average transportation costs per pupil (maximum 10 pts.).
4. Condition of physical facilities—were they so inadequate as to require excessive expenditures for heating, lighting, and general maintenance (maximum 20 pts.).

Other:

1. Program Evaluation (weight 4):

	Points
Above average	50
Average	40
Below average	30

NOTE.—maximum points 200.

2. Placement (weight 3): 0.5 points for each percent placed, (maximum points 150).

Adjustments

A. What was the total program cost (as submitted by the school administrator) per student in relation to other programs of a similar nature.

B. How many teachers (in FTE's: number of full-time equivalent instructors) were needed for the program.

Criteria 5, 6, 7 and 8 describe the manner in which the relative fiscal ability of the district is considered. Consideration of the relative differences in cost among programs is accomplished through adjustment A in the preceding paragraph.

(ii) Wichita with a population of 263,297 is the only city in Kansas with a population in excess of 250,000. The population of Wichita represents 11.7 percent of the State's population. In 1972, this district received $896,013 out of a total of $4,881,703 State and Federal funds. This represents 17.3 percent of the total State and Federal funds available for distribution.

The Wichita School District operates the largest area vocation-technical school in the State with an enrollment of approximately 3,000 students. This school accounts for a large portion of the reimbursement received by this district.

Wabaunsee County in east-central Kansas was selected as an example of a poorer rural area. This county has a per capita income of $2,496 as compared with a statewide average of $3,340. The population of this county is 6,546 which is approximately 0.3 of 1 percent of the State's population. There are two unified school districts in this county. In fiscal year 1972, these two districts received approximately 1 percent of the State and Federal funds available for vocational programs in unified school districts.

There are numerous reasons why the percentage of the State's population would not be reflected in the disbursement of State and Federal funds. The disbursement formula centers around the vocational programs modified by (1) manpower demand, (2) the type of student, (3) local ability to pay, (4) excess costs, (5) evaluation and (6) placement. Population is not reflected in any of these criteria. Further, variations in these criteria among different areas of the State will create different rates of reimbursement independent of the population of the area.

h. Construction and Equipment

Construction of vocational education facilities in Kansas has been funded from Federal and local moneys. No State funds are involved. Since 1965, vocational money available for construction has been used to develop the 14 area vocational-technical schools in Kansas. In 1969, the legislature placed a moratorium on the construction of additional area vocational-technical schools and community colleges until a comprehensive plan for postsecondary education in the State was developed. Since 1969 all construction of vocational facilities has been done with local funds.

The following amounts were spent for construction between 1965 and 1973.

Fiscal year	Location	Federal	Local	Total
1965	Topeka	$699,100	$699,100	$1,398,200
	Dodge City	2,940	2,940	5,880
1966	Beloit	45,700	45,700	91,400
	Dodge City	175,355	175,355	350,710
	Goodland	45,990	45,990	91,980
	Manhattan	318,890	318,890	637,780
	Wichita	286,000	286,000	572,000
1967	Atchison	206,900	206,900	413,800
	Beloit	12,000	12,000	24,000
	Dodge City	3,750	3,750	7,500
	Goodland	2,020	2,020	4,040
	Kansas City	247,300	347,300	694,600
	Salina	2,000	2,000	4,000
	Wichita	220,000	220,000	440,000
1968	Arkansas City	1,000	1,000	2,000
	Beloit	23,000	23,000	46,000
	Coffeyville	9,900	9,900	19,800
	Goodland	17,650	17,650	35,300
	Kansas City	297,700	297,700	595,400
	Liberal	313,650	313,650	627,300
	Topeka	74,770	74,770	149,540
	Wichita	36,000	36,000	72,000
1969	Arkansas City	4,780	4,780	9,560
	Beloit	42,000	42,000	84,000
	Emporia	2,980	2,980	5,960
	Goodland	24,603	34,603	69,206
	Liberal	2,618	2,618	5,236
	Manhattan	6,000	6,000	12,000
	Salina	17,640	17,640	35,280
	Wichita	74,129	74,129	148,258
1970	Goodland	0	65,060	65,060
1971		0	0	0
1972	Beloit	0	250,000	250,000
	Goodland	0	113,837	113,837
1973	Topeka	0	518,970	518,970
	Totals	3,326,365	4,274,232	7,600,597

Arkansas City passed a bond issue of $1,165,000 for new vocational education facilities. These are to include basically two units. One for industrial technology which would house auto mechanics, welding laboratories, machine shop, drafting and electronics laboratories with the related services included. The other will be a business and service technology facility which will include distributive education, agribusiness, stenography laboratories, business machines, accounting and data processing, computer, and police science, and their related services. These facilities are to be completed during fiscal year 1974.

OTHER FEDERAL PROGRAMS, PUBLIC LAW 90–576

a. Exemplary Programs and Projects

Exemplary funds under part D of the act including the U.S. Commissioner's share have been used in Kansas to support programs designed to bridge the gap between school and the world of work. These programs have become the models for developing career education in the State. Funds are allocated on a proposal basis. Proposals are evaluated on the criteria set forth in the State plan and vocational handbook. Staff representatives from vocational education, guidance, curriculum, planning, research and development are called on to review and evaluate applications. Programs are approved on a 3 year basis with decreasing support each year. (Dependent upon moneys available.)

The following career education programs funded from exemplary funds, have been implemented or are planned for fiscal year 1974. All of these programs have originated since fiscal year 1968. The data listed here are for fiscal year 1973.

	Part D—exemplary	Part C—research	Estimated enrollment
Kansas City [1]	$88,000		5,600
Lawrence [1]	52,000		3,000
Clay Center [1]	38,000		1,700
KSU [1]	30,000		
Liberal U.S.D	27,800		1,200
Beloit AVTS	25,480		1,500
Shawnee Mission U.S.D	25,000		
Wichita (summer fiscal year 1973)	16,994		600
Withita (fiscal year 1974)		[2] $96,882	3,000
Garden City	[2] 25,000		800
KSU (K-VIEW)	6,310		6,000
Hill City (fiscal year 1973-1974)	5,000	109,014	7,000
Emporia (fiscal year 1974) 3 year Federal support	[2] 66,898		2,000
Pittsburg (fiscal year 1974) 3 year Federal support	[2] 63,399		2,000
Totals	469,881	205,896	34,400

[1] Urban suburban-rural exemplary programs.

[2] Programs approved for 1973 but did not begin operation until late fiscal year 1973 or will operate in fiscal year 1974.

Kansas has made substantial progress in career education in the past several years. Kansas State University, Manhattan, Kans., has been actively engaged in in-service education and the development of instructional materials. Other teacher education institutions are now interested.

The model career education programs for urban, suburban, and rural school districts at Kansas City, Lawrence and Clay Center, Kans., are successfully completing their third and final year of their grant. Eight other school districts are either operating career education programs or have planned these programs for fiscal year 1974.

Projections for fiscal year 1977 are difficult to make. Many schools are interested in career education and many opportunities are available to start these programs. Progress will depend largely on the availability of funds to assist these schools with the initial cost of implementation.

As a goal, the State division of vocational education has estimated that 170,000 students should be served in career education programs by fiscal year 1977.

b. *Residential Vocational Education*

No residential vocational centers are used now in Kansas and none are planned for the immediate future.

c. *Consumer Education and Homemaking*

The following table is a summary of the enrollments in Consumer Education and Homemaking over the past 6 years.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	9,950	11,069	519	24,680	1,928	577	1,947	175	59
Adult	5,731	4,552	400	3,563	865	259	581	79	26
Total	15,681	15,621	919	28,243	2,793	863	2,528	254	85

Consumer education and homemaking has shown rapid growth in Kansas. This growth rate was accentuated after the passage of the Vocational Education Amendment of 1968.

The secondary and adult levels have the greatest proportion of the enrollments. Occupational by oriented programs have shown substantial growth since 1968. There is concern for the development of postsecondary programs in this area, but to date, funds and personnel have not been available to accomplish this goal. A successful cooperative program at the Independence Community College in child care, was organized in 1972.

Growth in services to the disadvantaged and handicapped has grown rapidly since 1968. In addition to 3,265 disadvantaged and 951 handicapped students, the following programs were operated.

25 programs in 17 low income counties.
38 programs in 16 high unemployment counties.
71 programs in 7 high population density counties.
47 programs in 7 high dropout counties.

Consumer education and homemaking is becoming coeducational. Fifty-five school programs reported both boys and girls enrolled in classes on family relationships, consumer education, comprehensive home economics, foods and housing.

Lay advisory committees have been active in the evaluation of classes and in the development of curricular changes. Last year the 189 chapters of Future Homemakers had 9,727 students. This was an increase of 549 members over the previous year.

d. Cooperative Vocational Education

Cooperative vocational education has increased rapidly over the past decade with the greatest increase coming after the passage of the Vocational Education Amendment of 1968.

The following enrollments have been taken from the records of the State division of vocational education.

Fiscal year:	*Enrollment*
1963	483
1968	865
1972	3,013
1977	4,418

Cooperative vocational education is important in Kansas. One of the problems of rural States such as Kansas is providing access to vocational education in the more sparsely populated section of the

State. The possibility of providing cooperative programs on a regional basis is now under study at Clay Center and Hill City, Kans.

e. Work-Study Programs

No data are available on work-study programs in fiscal year 1963. The following enrollments were reported for fiscal year 1968 and fiscal year 1972. Projections for fiscal year 1977 are taken from the State plan for vocational education, 1973.

Fiscal year:	*Enrollment*
1968	194
1972	478
1977	900

This program has been well received in Kansas. Students have been employed as teacher aides, maintenance and building helpers and in the clerical fields.

f. Research and Training

Research.—The State division of vocational education in Kansas does not have a research coordinating unit. Research moneys available have been used to obtain under contract, information required for management decisions in vocational education. A proposal is now under study in the State department of education to establish a research coordinating unit.

In fiscal year 1973, the following projects were funded from part C, research funds in Kansas.

Title	Location	Amount
Developing computerized procedures for Reimbursement.[1]	Kansas State University, Manhattan, Kans	$8,415
Conceptual based industrial education	Witchita Public Schools, Witchita, Kans	43,000
Developing and testing distributive education curriculum.	A consortium of States (Wisconsin)	26,682
Defining vocational and technical education	Emporia State Teechers College, Emporia, Kans	990
Competencies for the printing trade	Kansas State College Pittsburg, Kans	338
Curriculum needs for vocational agriculture	Kansas State University, Manhattan, Kans	999
Developing vocational programs in rural schools[1]	Unified School Association for Vocational Education, Hill City, Kans.	8,000
Developing guide for career education	Division of Pupil Personnel Services, Kansas State Department of Education.	5,000
Facilities study of area vocational-technical schools	Kansas State University Manhattan, Kans	2,000

[1] Described below.

Developing Computerized Procedures for Reimbursement.

During 1972, a research project was implemented to provide vocational education with current, localized and relevant information on manpower needs. The information generated by this project will be used (a) in the reimbursement formula for vocational programs, (b) in the approval of vocational programs, (c) in the planning for local educational programs, and (d) as a basis for developing career education programs.

This project being operated under contract with Kansas State University, utilizes a combination of labor needs predictors and formulas adapted to vocational education for specific uses. When perfected, the formula developed by this project will be fit into the operation of a planned research coordinating unit component for the Kansas State Department of Education.

The expanded objectives for this project include the development of a computerized formula for vocational fund distribution, the development of a student accounting system including placement and follow-up information, and providing for an information dissemination system. The administrative control of activities of this contracted project remains in the division of vocational education.

Developing Vocational Programs in Rural Schools.

Part C discretionary funds used for developing career education were assigned to the Unified Schools Association for Vocational Education (USAVE) centered at Hill City. This consortium of 18 rural school districts will cooperate in developing career education for students in grades K–8. A coordinator for career education has been employed, and 284 teachers are involved in developing educational processes with careers as a product of the education. The Colby Community College and Northwest Kansas Area Vocational-Technical School are involved in planning and developing the secondary part of this total educational program.

STATE ADVISORY COUNCIL

In the 3 years of its existence, the State Advisory Council for Vocational Education has completed the following reports.

1. Three annual evaluations of vocational education in Kansas for 1970, 1971 and 1972. These evaluation reports contained 66 recommendations for the State board of education.
2. An evaluation of vocational teacher education and certification procedures.
3. A study of the funding pattern used for area vocational-technical schools and community colleges in the 50 States.
4. The second annual evaluation of the career education programs in Kansas City, Lawrence and Clay Center, Kans.
5. The third annual evaluation of the career education programs in Kansas City, Lawrence and Clay Center, Kans., and the first evaluation of career education in the consortium of rural schools centered at Hill City, Kans. (These will be completed June 30, 1973.)

In addition, the council has developed numerous position papers on current problems and legislation. Approximately 6 meetings per year have been held.

Probably, the most significant contribution of the advisory council is the channel of communications that it has developed between the lay public and the State educational agency. Specifically, the council has——

1. Provided a channel of communication through which information from the grass roots level can be gathered and disseminated to the appropriate agencies involved in the education process.

2. Served as a sounding board against which new ideas, priorities and policies can be tested prior to their adoption.
3. Provided an impartial and objective evaluation of vocational education activities in Kansas and a built-in procedure for funneling recommendations on these activities to the agencies involved.
4. Provided an accountability for vocational education which is consistent with the current emphasis on fiscal responsibility.

In fiscal year 1973, it is estimated that $19,531,000 in Federal, State and local funds will be expended for vocational education in Kansas. Of this amount, the State advisory council for vocational education will spend approximately $30,000 to monitor and evaluate these activities.

Working relationships between the State board of education and the advisory council have been good. There is no serious disagreement in philosophy and the recommendations of the council have been received with consideration and understanding.

Some of the council's 66 recommendation have been implemented and others are in varying degrees of implementation. The Council recognizes that many of these recommendations do not lend themselves to instant implementation. They require a reorientation of philosophy and thinking on the part of people and sometimes funds which are not always easily acquired. The interests of young people in Kansas are probably best served by the orderly development of solutions to these problems with a maximum involvement of all persons concerned.

SUMMARY AND RECOMMENDATIONS

The enrollments presented in the preceding pages of this report describe the growth in vocational education over the past decade in Kansas. In addition to enrollment growth, placement and followup to assure quality in these programs has received added emphasis. The growth in enrollments has been accelerated since the passage of the Vocational Education Amendments of 1968, indicating that this legislation was effective.

The statewide system of area vocational-technical schools is virtually complete at this time and the dedication of community colleges to vocational education has greatly increased. Postsecondary vocational education is the most rapidly growing level of education in the State.

Agriculture and homemaking programs have made substantial gains in programs that are occupationally oriented. In addition to the traditional farm production programs, courses leading to employment in occupations related to home economics.

Especially gratifying is the progress made in services to the disadvantaged and handicapped. Between 1968 and 1972, enrollments of these persons in vocational education programs increased approximately 30 fold.

Administration at the State level has progressed through the development of computerized enrollment techniques which will enable these data to be available faster and more accurately than was possible in the past. As the result of a rather large research project funded by the State Division of Vocational Education, improved manpower data on a continuing basis are available for improved management decisionmaking.

Recommendations to the committee include the following:

1. *More State and Federal money should be invested in vocational education.*—Over the past several years, appropriations of Federal funds and State funds have not kept pace with the growth in vocational enrollments. The result of this has been that each year a smaller percentage of the cost has come from State and Federal funds and a larger percentage of the costs from local districts. In Kansas, tax and budget limitations limit the investment that local districts can make and consequently the development of vocational education in Kansas.

2. *Congress should move to stabilize the funding pattern for vocational education.*—Hopefully, educational planning can be done in the spring for the following fall term. When appropriations are delayed as they have been for the past several years, an orderly process of effective planning becomes impossible. Federal funds could be used more effectively if the amount of the appropriation could be known several months prior to the start of the fiscal year.

In general, the State Division of Vocational Education is opposed to the Better Schools Act of 1973. First, because of the reduced funding provided. The attached summary was prepared by the State Division of Vocational Education and shows that Kansas would lose approximately $7 million under the special revenue sharing proposal.

Secondly, it will force the educational system to compete in the political arena for funds. It is unfortunate that decisions are not always made on the basis of relative merit, but sometimes on the basis of the greatest political muscle. If categorical aid is abandoned, it could lead to greater competition among groups for the funds available.

From the standpoint of reorganization and regionalization of the U.S. Office of Education, it is believed that the educational programs throughout the 50 States would be best served by the maintenance of an adequate staff in the U.S. Office of Education to establish policies and procedures on a national basis so that consistency would be maintained from one region to another.

COMPARISON OF KANSAS FISCAL YEAR 1972 CATEGORICAL GRANTS AND ACTIVITIES WITH ESTIMATED RESOURCES UNDER THE BETTER SCHOOLS ACT

Fiscal Year 1972 funding level	*Estimated level under the Better Schools Act*
SAFA—$8,700,000 (includes "A" and "B" children).	SAFA—4,550,000 (includes "A" children).
Disadvantaged—$10,664,309 (includes ESEA titles I–A, I–B, I–C, corrections, migrants, welfare, and State administration).	Disadvantaged—$10,430,000 (includes ESEA titles I–A, I–B, I–C, corrections, and migrants; vocational education pt. B [15 percent] and special needs).
Handicapped—$518,173 (includes EHA titles VI–B, VI–D, and State administration).	Handicapped—$1,740,000 (includes EHA titles VI–B, VI–D; ESEA title I—Welfare; ESEA title III [15 percent]; vocational education pt. B [10 percent]).
Vocational education—$5,849,064 (includes vocational education, pts. B, B [10 percent handicapped], B [15 percent disadvantaged], F, G, D, C, H, special needs, advisory council, inservice, and State administration).	Vocational education—$4,676,000 (includes vocational education, pts. B, F, G, D, C, H, and inservice).
Support services—$8,305,772 (includes adult education, EPDA, NDEA title III, ESEA title II, ESEA title III, ESEA title V, evaluation, school lunch, school milk, and nonfood assistance).	Support services—$5,743,000 (includes adult education, EPDA, EDEA title III, ESEA title II, ESEA title III, ESEA title V, evaluation, school lunch, school milk, nonfood assistance, and all State administration costs).
$34,037,318.	$27,139,000.

Net loss to Kansas under Better Schools Act, $6,898,318.

KENTUCKY

State Director—Carl F. Lamar

INTRODUCTION

I appreciate very much the invitation extended to me to prepare a detailed report to the Congress of the United States on the status of vocational education in the Commonwealth of Kentucky during the past decade and the progress that has been made in this vital area of education.

This is basically a report on the progress that Kentucky has been able to make in vocational education and manpower development, since passage of the Vocational Education Act of 1963 (Public Law 88-210), in developing and implementing federally supported programs in this area of education through Federal, State, and local financial support and cooperative efforts. It is recognized that these instructional programs and supporting services have been largely implemented at the local educational agency level.

There are some ideas expressed throughout the report regarding certain aspects of the program that should be preserved and safeguarded and others which should be changed or eliminated. These ideas are expressed with the sincere hope that they may be helpful in improving Federal laws and Federal guidelines related to financial support and administration which are needed to strengthen the overall thrust of the programs based on the needs of the people and the manpower requirements of the economy.

In your invitation to prepare this report, you suggested a specific outline that should be followed in preparing the document. This reflects the basic areas of concern to the subcommittee. However, you suggested that additional information which might expand the scope of the outline would be appropriate. Information which does not fit the outline is included at the end of the report.

I have attempted in this report to cover the entire expanse of adult, vocational, and technical education programs in Kentucky which are operated by the Bureau of Vocational Education, State Department of Education, under the direction of the State Superintendent of Public Instruction, and under the management and control of the State Board for Vocational Education, which is also the State Board of Education. An attempt is made to present a full picture of the basic program functions, ancillary services, and exemplary programs and projects that have been developed as parts of the total evolving effort in this area of vocational education and manpower development in the State. We sincerely believe that our efforts to promote vocational education and manpower development throughout Kentucky have had a salutary effect in promoting much needed regional organizations for providing educational services to local educational agencies. This has been accomplished through cooperative arrangements and by appropriately relating vocational education to the evolving concept of career education.

Again, I must take this opportunity to commend the House Committee on Education and Labor, and especially the Subcommittee on Education, for its continuing efforts to assure a viable and sound program of vocational education and manpower development in this country. These committees are to be highly commended for their untiring efforts, sustained dedication, and dynamic leadership during the 10-year period beginning with the passage of the Vocational Education Act of 1963. I consider this period to be the "hallmark" of Congress in promoting the cause of vocational education and manpower development in this country. Tremendous advances have been visualized and begun even though there is much more that needs to be done in the years ahead.

We believe we are extremely fortunate to have such a dedicated, capable, and forward looking person as Hon. Carl D. Perkins, from Kentucky, to serve as Chairman of both the Full Committee on Education and Labor and the General Subcommittee on Education during this period of unrest and frustration in educational circles throughout the United States. We are also fortunate to have Hon. Romano L. Mazzoli from the Third Congressional District of Kentucky serving on this important committee. We fully recognize the distinguished service that the other members of this committee have rendered on behalf of educational progress in this country. The people of this Nation should be forever grateful for your perseverance and effective leadership on their behalf.

Population in Kentucky

The 10-year period since passage of the Vocational Education Act of 1963 has been a decade of recordbreaking growth for the Commonwealth of Kentucky. According to the 1970 census, the population has grown to 3,218,706. This was an increase of over 5.6 percent. The 1970 census indicated that the population was 92.7 percent white and 7.3 percent nonwhite. It is expected that this ratio will remain fairly stable during the next decade. The nonwhite population, primarily black, is located largely in the urban areas of the central and western sections of Kentucky. About 51 percent of the population is female and 49 percent male—almost equally divided.

The changing age composition of the State's population is shown in table 1. The declining birthrate is indicated by a decrease in the number of children under 5 years of age; the growing longevity of the population is shown by an increase in the 45 years old and over age groups; whereas, the 15 to 25 age groups had a marked increase; and the 25 to 44 age group was rather stable.

TABLE 1.—AGE COMPOSITION OF THE KENTUCKY POPULATION, 1960 TO 1970

Age Group	1970 Census		1960 Census		Percent change
	Number	Percent	Number	Percent	
Under 5	270, 218	8. 4	342, 482	11. 3	−21. 1
5 to 14	653, 464	20. 3	637, 382	21. 0	+2. 5
15 to 19	320, 660	10. 0	255, 837	8. 4	+25. 3
20 to 24	261, 066	8. 1	192, 498	6. 3	+35. 6
25 to 44	731, 233	22. 7	736, 780	24. 3	−0. 8
45 to 65	644, 322	20. 0	587, 647	19. 3	+9. 6
Over 65	337, 743	10. 5	285, 530	9. 4	+18. 3
Total	3, 218, 706	100. 0	3, 038, 156	100. 0	- 5. 6

Kentucky is a State containing many relatively small towns and cities. Only 26 cities in the State had a population of more than 10,000 people in 1970. Kentucky is now an urban State by definition, with 52.3 percent of the population living in cities of 2,500 or more. In fact, one-fourth of Kentucky's population lives in its 11 largest cities.

Projections of the State population by the U.S. Bureau of Census indicate a population of 3,559,000 by 1980. This would be a gain of 340,694 over the 1970 census. It was based upon (1) a declining rate of out-migration and (2) a declining birthrate.

Labor Force and Employment Trends

It is predicted that job increases in the State should sharply reduce net outmigration of the population. The Kentucky labor force and the employment trends are shown in table 2. The labor force, as reported by the 1970 census, averaged 1,218,800. This included 1,153,800 employed and 65,000 unemployed. The labor force in 1970 was an increase of 24.5 percent over that in 1960. Thirty-five percent of the Kentucky population in 1970 was employed as compared to 38.7 percent for the United States as a whole—3.7 percent below the national average.

TABLE 2.—KENTUCKY LABOR FORCE AND EMPLOYMENT TRENDS, 1960 TO 1970

Employment	1960 Employment		1970 Employment		Percent change
	Number	Percent	Number	Percent	
Agricultural	156, 300	16. 9	98, 000	8. 5	−37. 3
Nonagricultural	770, 800	83. 1	1, 055, 800	91. 5	+36. 9
Total	927, 100	100. 0	1, 153, 800	100. 0	+24. 5
Unemployment			65, 000		
Grand total			1, 218, 800		
Nonagricultural:					
Wage and salary workers	648, 000	84. 1	927, 600	87. 9	+43. 1
Manufacturing	(165, 800)	(25. 6)	(248, 100)	(26. 7)	+49. 6
Mining	(31, 300)	(4. 8)	(29, 100)	(3. 1)	−7. 0
Construction	(36, 000)	(5. 6)	(51, 500)	(5. 6)	+43. 1
Transportation, communication, and utilities	(50, 500)	(7. 8)	(58, 500)	(6. 3)	+15. 8
Trade	(137, 500)	(21. 2)	(185, 100)	(20. 0)	+34. 6
Finance, insurance, and real estate	(25, 900)	(4. 0)	(36, 600)	(4. 0)	+41. 3
Services	(86, 400)	(13. 3)	(138, 800)	(15. 0)	+60. 6
Government	(114, 600)	(17. 7)	(179, 900)	(19. 3)	+57. 0
Other nonagricultural	122, 800	15. 9	128, 200	12. 1	+4. 4
Total	770, 800	100. 0	1, 055, 800	100. 0	+36. 9

Agricultural employment decreased by 58,000 jobs during the decade of the 1960's and by the end of this period accounted for less than 8.5 percent of the total employment. The total non-agricultural employment gained 36.9 percent during the same period. Employment in nonagricultural wage and salary workers increased 43.1 percent. This rate was 30 percent greater than that of the Nation as a whole. The manufacturing industries, with a 49.6 percent increase in employment, was the major area for overall economic growth. However, employment in service occupations, with a 60.6 percent increase, was the area showing the greatest gain in employment opportunities. Kentucky's capacity for additional industrial growth in the years ahead is substantial.

The unemployment rate in Kentucky during the decade of the 1960's ranged from 7.3 percent in 1960 to 5.3 percent in 1970. The per capita income in 1970 was about $3,036, an increase of $1,353 from 1960. It has been steadily increasing as a percent of the national average. However, it reached a high point of 73 percent of the national average in 1970. The average hourly wage for production workers in Kentucky averaged $3.44 during 1970 as compared to $3.57 for the United States as a whole. We are concerned about the high level of unemployment, the low per capita income, and the relatively low average hourly wages paid for the work force.

Vocational Education

Kentucky has made significant progress during the period since passage of the Vocational Education Act of 1963 in expanding and improving vocational education and manpower development opportunities in all areas of the state and for people of all age levels.

In analyzing projected enrollments, there are several variables that need to be taken into account and carefully considered. It is believed that there will be increased interest in integrating career education concepts and activities into the total curriculum from early childhood through the productive period of adults. This will extend from kindergarten through adult and continuing education. It will include the career education phases of (1) self and career awareness; (2) introduction to, orientation to, and exploration of the economic system—its structure and the different occupational clusters that are included; (3) career preparation where the main thrust of vocational and technical education must be emphasized; and (4) guidance and counseling services which must be a viable and integral part of the total educational process from its beginning to the very end.

It is believed that an effective educational experience which prepares all educable and trainable people for a productive role in the economy and a responsible role in our society must be based on a sound total educational system that extends from the beginning of early childhood education to the end of adult and continuing education. There must be appropriate articulation between the different levels of education and reinforcement of each individual's educational experiences all up and down the line. All levels of education need to be appropriately conceptualized, properly planned, and effectively coordinated so that each level can make its desired contribution to the welfare of the total educational system.

In analyzing table 1 regarding the age composition of the Kentucky population, basically, we have concluded that the educational system needs to be organized to serve all age groups, ranging from the 5 to 14 age level through the 45 to 65 age level. In 1970, this represented about 2,610,345 people, or 81.1 percent of the population. The 270,218 people under 5 years of age need better educational experiences at home which emphasizes the importance of parent education. The 337,743 people over 65 years of age also need relevant educational opportunities so they be be assured of good health habits and life fulfillment in their leisure time and avocational activities during their years of retirement.

Vocational education must give primary attention to the areas of career choices and vocational preparation. This will largely extend from the 15 to 19 age level through the 45 to 65 age level. This represents about 1,957,281 people or 60.8 percent of the population now in Kentucky. It is believed that approximately 80 to 85 percent of those in the 15 to 24 age groups (465,381 to 494,467) should have the opportunity for vocational preparation that will lead to employment below the baccalaureate degree. About 15 to 20 percent of this group (87,259 to 116,345) should have the opportunity to enter a preparation program that will lead to the baccalaureate degree. The entire group from 25 to 65 years of age (1,375,555) should have the opportunity for adult and continuing education. It has been estimated that from one-third to one-half of this group (458,318 to 687,778) should be receiving refresher, upgrade, or retraining in vocational and technical education each year as long as they are productively employed in the world of work.

To reach this level of educational commitment and opportunity for vocational training in Kentucky, we have a long distance to go. It will require a concerted and cooperative effort on the part of the Federal, State, and local governments and full understanding and dedication on the part of the entire educational community to get this goal attained.

Enrollments in vocational and technical education by program areas at the secondary, postsecondary, and adult levels are shown in table 3 and figure 1. Actual enrollments are shown for the 1963, 1968, and 1972 fiscal years. A projected enrollment for 1977 is also included.

In 1963 when the Vocational Education Act of 1963 was enacted, the total enrollment in vocational education in Kentucky was 79,124—47,933 secondary; 3,898 postsecondary; and 27,293 adult. In 1972 the total enrollment had increased to 170,245—99,169 secondary; 12,844 postsecondary; and 58,232 adult. The 1972 enrollment was a gain of 91,121 students over the enrollment in 1963. The increased enrollment included 51,236 secondary; 8,946 postsecondary; and 30,939 adult students.

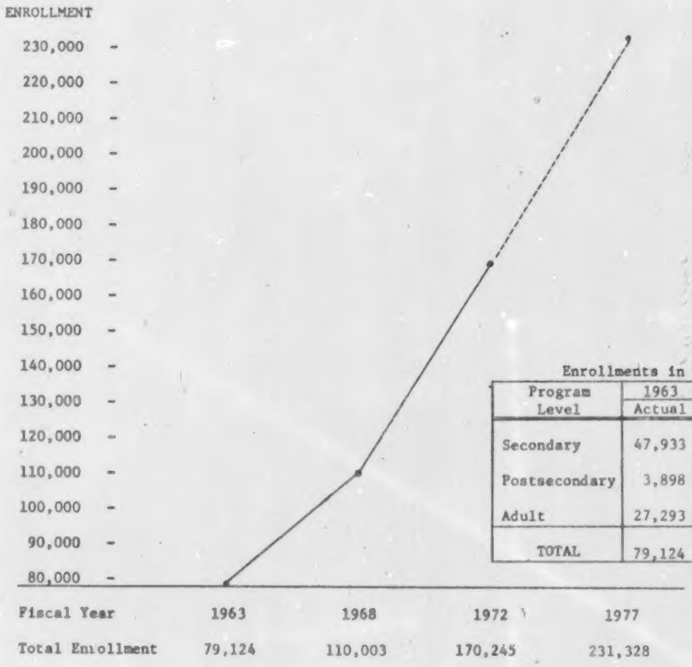
In anticipation of increasing interest in and support of vocational education during the next 5 years, it is conservatively estimated that the projected enrollment for 1977 should be 231,328. The anticipated increased support for vocational education should result in expanded facilities and an increased number of programs, services, and activities available to the people in Kentucky. This would include 130,096 secondary; 21,575 postsecondary; and 79,657 adult students. In comparing these projections with the population indicated for 1970 in table 1, it is evident that our expectations fall far short of the anticipated needs at all three levels of the population. It is recognized that some of the need will be met by the private sector in private and parochial schools and by business and industry. The extent of their programs and enrollments is not accurately known at this time. There are indications that the military services are also orienting their vocational and technical training programs to future civilian employment opportunities.

Kentucky is now in the process of developing an occupational information system which is designed to provide detailed and accurate information on a county basis regarding manpower supply; manpower demand; educational resources for occupational education; and student enrollment, placement, and followup. It is intended that the occupational information system will enable the state to more accurately assess its needs on a continuing basis and to make more effective annual and longrange plans to meet the vocational education and manpower development requirements of the people and the economy.

TABLE 3.—VOCATIONAL EDUCATION ENROLLMENTS BY YEARS, PROGRAMS, AND EDUCATIONAL LEVELS, ACTUAL FOR 1963, 1968, AND 1972, AND PROJECTED FOR 1977

Program area	Secondary education				Postsecondary education				Adult education			
	1963	1968	1972	1977	1963	1968	1972	1977	1963	1968	1972	1977
Agriculture	14, 058	13, 883	15, 535	18, 550	0	20	65	800	6, 427	4, 012	4, 590	5, 630
Business and office	0	7, 625	13, 972	17, 283	0	392	1, 372	1, 400	0	1, 912	7, 875	9, 200
Distribution and marketing	751	1, 220	6, 141	17, 225	0	0	46	3, 250	1, 795	3, 038	5, 756	12, 025
Health occupations	0	0	510	2, 000	711	1, 039	2, 194	4, 000	107	344	621	800
Home economics:												
Gainful	0	89	593	1, 450	0	0	89	450	0	475	1, 415	2, 250
Homemaking	29, 672	33, 995	38 075	44, 000	841	0	984	1, 500	4, 392	6, 485	12, 153	18, 000
Public service occupations [1]	0	0	0	720	0	0	0	1, 100	0	0	5, 316	8, 320
Special programs, disadvantaged [2]	0	0	11, 738	13, 507	0	0	1, 194	1, 325	0	0	22	797
Handicapped [1]	0	0	1, 573	1, 866	0	0	478	550	0	0	82	135
Cooperative	(751)	(2, 541)	(8, 405)	(38, 167)								
Technical occupations	0	135	159	300	305	498	777	700	328	413	295	500
Trades and industry	3, 452	5, 436	10, 873	13, 195	2, 041	2, 990	5, 645	6, 500	14, 244	26, 002	20, 107	22, 000
Total	47, 933	62, 383	99, 169	130, 096	3, 898	4, 939	12, 844	21, 575	27, 293	42, 681	58, 232	79, 657

[1] Enrollments in public service occupations previous to 1972–73 were counted with trades and industry.
[2] Unduplicated.



Enrollments in Vocational Education

Program Level	1963 Actual	1968 Actual	1972 Actual	1977 Projected
Secondary	47,933	62,383	99,169	130,096
Postsecondary	3,898	4,939	12,844	21,575
Adult	27,293	42,681	58,232	79,657
TOTAL	79,124	110,003	170,245	231,328

Figure 1 - VOCATIONAL EDUCATION ENROLLMENTS IN KENTUCKY BY YEARS FOR FISCAL YEARS 1963, 1968, and 1972, AND THE PROJECTED ENROLLMENT FOR FISCAL YEAR 1977

P.L. 90-576—PART B STATE VOCATIONAL EDUCATION PROGRAMS

Section 121 of part B in the Vocational Education Amendments of 1968 states clearly that:

> The Commissioner is authorized to make grants to the States to assist them in conducting vocational education programs for persons of all ages in all communities of the States, which are designed to insure that education and training programs for *career vocations* are available to *all* individuals who desire and need such education and training.

a. Job Training Enrollments

Since the Vocational Education Act of 1963 was enacted into law, Kentucky has attempted to assess the total needs of the state in terms of the best information available. We have studied all occupational fields on a county, regional, and State basis. Each local educational agency interested in offering vocational and technical education programs was involved. We have also developed a State plan for the administration of vocational education each year in which we have attempted to set forth a longrange program plan extending over a period of 5 years and an annual program plan. These plans have been developed in consultation with the state advisory council for vocational education and regional advisory councils for vocational education.

As a basis for distributing part B funds to local educational agencies, the Bureau of Vocational Education, State Department of Education, has developed guidelines to be used for program evaluation and program planning. They are printed in a publication entitled, Kentucky Handbook for Planning and Evaluating Local Vocational Education Programs. This publication was prepared and is updated each year with the cooperation of the State Department of Economic Security and other education and training agencies in the State so as to have available the latest up-to-date occupational information regarding current and projected manpower needs and job opportunities on the local, regional, State, and National levels.

The general policies, rules, regulations, and procedures set forth in the State plan and the handbook for planning and evaluating local vocational education programs serve as the basic guides for the State administration, teacher education institutions, and local education agencies to follow in developing their long-range and annual program plans which are intended to identify the job training areas needed in the State and the enrollments needed in each occupational area to meet the labor market demands.

This information is not only helpful for program planning and program evaluation, but it is also helpful in providing useful occupational information in vocational guidance and counseling to students and prospective students as they seek to make sound career choices and determine the occupations for which they desire vocational preparation.

The following tables indicate the actual enrollments by job training areas at the secondary, postsecondary, and adult levels for fiscal years 1963, 1968, and 1972, and the projected enrollments for fiscal year 1977.

TABLE 4.—VOCATIONAL EDUCATION ENROLLMENTS IN PROGRAM AREAS BY FISCAL YEARS—SECONDARY PROGRAMS

Program areas and course offerings	1963[1]		1968		1972		1977	
	Number	Enrollment	Number	Enrollment	Number	Enrollment	Number	Enrollmen
Agriculture	181	14,058	252	13,883	317	15,535	540	18,550
Production agriculture	0	0	160	12,174	157	11,888	160	[2]4,800
Agribusiness I, II[3]	0	0	15	407	45	1,324	175	10,500
Agriculture mechanics	0	0	30	406	46	633	70	1,050
Horticulture	0	0	33	733	58	1,441	75	1,200
Other	0	0	14	163	11	249	60	1,000
Business and office	0	0	195	7,625	344	13,972	489	17,283
Accounting Junior Management	0	0	20	305	53	964	94	1,210
Data processing	0	0	0	0	7	117	7	173
Clerical	0	0	90	3,670	115	6,311	188	7,790
Secretarial	0	0	85	3,650	159	6,329	188	7,835
Other	0	0	0	0	10	251	12	275
Distribution and marketing	(4)	751	41	1,220	230	6,141	430	17,225
Health occupations	0	0	0	0	18	510	69	2,000
Health careers	0	0	0	0	17	495	68	1,970
Practical nursing	0	0	0	0	1	15	1	30
Home economics[5]	[6]308	[6]29,672	7	89	39	593	85	1,450
Child care	0	0	2	26	7	135	15	325
Clothing Service	0	0	1	13	3	36	15	300
Food Service	0	0	4	50	21	299	45	675
Home Furnishing, Equipment, and Service	0	0	0	0	5	72	5	75
Homemaking[7]	(308)	(29,672)	302	33,995	295	38,075	310	44,000
Consumer economics[7]	(4)	(4)	0	0	(43)	(1,022)	(15)	(1,000)
Institution and Home Management and Superintendent Service[7]	0	0	0	0	3	51	5	75
Public service occupations	0	0	0	0	0	0	32	720
Fireman training	0	0	0	0	0	0	20	400
Law enforcement	0	0	0	0	0	0	12	320
Special programs	0	0	0	0	0	13,311	0	15,373
Cooperative (pt. B)[8]	0	(751)	(4)	(2,541)	0	(8,405)	0	(38,167)
Disadvantaged (pt. B)[8]	0	0	0	0	0	19,651	0	13,507
Handicapped (pt. B)[8]	0	0	0	0	0	1,573	0	1,866
Technical occupations	0	0	8	135	9	159	12	300
Electronics Technology	0	0	7	125	8	140	11	280
Highway Technology	0	0	1	10	1	19	1	20
Trades and industry	22	3,452	298	5,436	554	10,873	670	13,195
Air-conditioning	0	0	0	0	8	135	25	500
Appliance repair	0	0	13	236	14	238	5	100
Auto body	0	0	12	206	33	563	40	800
Auto mechanics	0	0	86	1,458	153	2,762	120	2,400
Motor vehicle	0	0	0	0	1	5	5	100
Office machine repair	0	0	2	41	2	58	3	50
Commercial arts	0	0	3	58	3	62	3	50
Carpentry	0	0	26	475	73	1,400	100	1,500
Electricity	0	0	33	617	38	709	50	1,000
Masonry	0	0	0	0	4	88	10	200
Plumbing	0	0	1	18	2	29	2	30
Diesel mechanic	0	0	0	0	1	14	2	30
Drafting	0	0	22	467	42	963	40	1,000
Electrical occupation	0	0	0	0	32	733	35	925
Electronics occupation	0	0	3	69	11	216	10	200
Fabric maintenance service	0	0	0	0	4	79	5	75
Dry cleaning	0	0	2	44	0	0	4	80
Graphic Arts occupation	0	0	10	186	12	224	13	250
Metal working occupation	0	0	52	976	102	2,339	175	3,500
Cosmetology	0	0	11	142	12	156	12	175
Quantity Food occupation	0	0	3	59	1	9	6	110
Small engine repair	0	0	1	25	1	20	1	20
Textile products and fabric	0	0	0	0	1	2	2	50
Upholstering	0	0	2	38	0	0	2	50
Other	0	0	16	321	4	69	0	0
Total	511	47,933	1,103	62,383	1,806	99,169	2,637	130,096

See footnotes at end of tabl

TABLE 5.—VOCATIONAL EDUCATION ENROLLMENTS IN PROGRAM AREAS BY FISCAL YEARS—POSTSECONDARY PROGRAMS

Program areas and course offerings	1963[1]		1968		1972		1977	
	Number	Enrollment	Number	Enrollment	Number	Enrollment	Number	Enrollment
Agriculture	0	0	1	20	5	65	35	800
Production agriculture	0	0	0	0	1	18	2	30
Agriculture mechanics	0	0	0	0	1	7	10	250
Horticulture	0	0	0	0	2	34	10	225
Other	0	0	1	20	1	6	13	295
Business and office	0	0	10	392	53	1,372	63	1,400
Accounting junior management	0	0	0	0	4	49	8	49
Data processing	0	0	2	29	7	150	5	154
Clerical	0	0	4	291	21	544	25	539
Secretarial	0	0	4	72	21	649	25	658
Distribution and marketing	0	0	0	0	2	46	125	3,250
Health occupations	(4)	711	14	1,039	105	2,194	180	4,000
Dental assistant	0	0	0	0	4	58	16	200
Certified laboratory assistant	0	0	0	0	1	18	1	20
Health careers	0	0	0	0	3	101	19	1,150
Medical assistant	0	0	0	0	1	2	1	30
Nurse aide	0	0	0	0	3	100	9	300
Nurse, associate degree	0	0	4	270	58	874	118	1,770
Practical nursing	0	0	10	769	34	1,018	15	500
Radiological technology	0	0	0	0	1	23	1	30
Home economics[5]	(6)56	[6] 841	0	0	7	89	30	450
Child care	0	0	0	0	1	22	10	100
Clothing service	0	0	0	0	0	0	10	150
Food service	0	0	0	0	4	30	8	160
Home furnishing, equipment, and service	0	0	0	0	2	37	2	40
Homemaking[7]	(56)	(841)	0	0	7	984	75	1,500
Consumer economics[7]	0	0	0	0	0	0	(10)	(100)
Public service occupations	0	0	0	0	0	0	20	1,100
Fireman training	0	0	0	0	0	0	14	990
Law enforcement	0	0	0	0	0	0	6	200
Special programs	0	0	0	0	0	1,672	0	1,875
Disadvantaged (Pt. B)[8]	0	0	0	0	0	1,194	0	1,325
Handicapped (Pt. B)[8]	0	0	0	0	0	478	0	550
Technical occupations	2	305	21	498	34	777	35	700
Aircraft maintenance technology	0	0	0	0	0	0	1	20
Electronics (communication)	0	0	0	0	0	0	1	20
Electronic technology	0	0	18	441	23	597	17	340
Highway technology	0	0	1	12	4	64	5	100
Instrumentation	0	0	0	0	1	15	1	20
Technical drafting	0	0	0	0	0	0	1	20
Tool and die design	0	0	2	45	0	0	1	20
Mechanical technology	0	0	0	0	6	101	8	160

See footnotes at end of table.

TABLE 5.—VOCATIONAL EDUCATION ENROLLMENTS IN PROGRAM AREAS BY FISCAL YEARS—POSTSECONDARY PROGRAMS—Continued

Program areas and course offerings	1963 [1]		1968		1972		1977	
	Number	Enrollment	Number	Enrollment	Number	Enrollment	Number	Enrollment
Trades and industry	328	2,041	146	2,990	293	5,645	323	6,500
Air-conditioning	0	0	0	0	5	104	7	140
Appliance repair	0	0	4	77	6	125	8	160
Auto body	0	0	13	221	25	426	20	400
Auto mechanics	0	0	27	508	37	665	20	400
Motor vehicle	0	0	0	0	1	8	2	40
Aviation occupation	0	0	0	0	3	68	6	100
Office machine repair	0	0	2	37	3	58	5	100
Commercial arts	0	0	0	0	1	9	5	100
Commercial photograph	0	0	0	0	0	0	1	20
Construction and maintenance	0	0	0	0	0	0	5	100
Carpentry	0	0	8	145	16	281	18	360
Electricity	0	0	12	309	6	138	20	500
Masonry	0	0	1	13	2	53	3	60
Diesel mechanic	0	0	2	25	9	135	8	150
Drafting	0	0	11	314	24	504	25	500
Electrical occupation	0	0	0	0	13	341	16	400
Electronics occupation	0	0	4	103	6	188	10	200
Graphic arts occupation	0	0	2	80	9	209	13	250
Instrumentation maintenance and repair	0	0	0	0	0	0	2	40
Metal working occupation	0	0	35	706	76	1,452	80	1,600
Tool and die	0	0	0	0	0	0	7	100
Barbering	0	0	1	26	1	23	1	25
Cosmetology	0	0	17	288	25	420	10	225
Quantity food occupation	0	0	1	14	3	68	4	80
Refrigeration	0	0	1	21	2	46	3	60
Small engine repair	0	0	1	9	1	10	1	20
Textile production and fabric	0	0	0	0	2	39	3	60
Hydraulics	0	0	0	0	0	0	3	60
Other	0	0	4	94	15	275	17	250
Total	386	3,[illegible]98	192	4,939	506	12,844	886	21,575

TABLE 6.—VOCATIONAL EDUCATION ENROLLMENTS IN PROGRAM AREAS BY FISCAL YEARS—ADULT PROGRAMS

Program areas and course offerings	1963 [1]		1968		1972		1977	
	Number	Enrollment	Number	Enrollment	Number	Enrollment	Number	Enrollment
Agriculture	350	6,427	205	4,012	232	4,590	205	5,630
Production agriculture	0	0	200	3,892	215	3,723	115	3,105
Agricultural mechanics	0	0	0	0	7	365	30	800
Horticulture	0	0	5	120	8	448	40	1,200
Other	0	0	0	0	2	54	20	525
Business and office	0	0	128	1,912	513	7,875	612	9,200
Accounting junior management	0	0	15	218	36	700	55	828
Data processing	0	0	1	10	17	255	19	295
Clerical	0	0	85	1,273	369	5,545	429	6,440
Secretarial	0	0	27	411	91	1,375	109	1,637
Distribution and marketing	(4)	1,795	48	3,038	240	5,756	523	12,025
Health occupations	(4)	107	9	344	32	621	39	800
Health careers	0	0	0	0	9	211	12	270
Medical assistant	0	0	0	0	1	16	2	30
Nurse aide	0	0	2	27	11	207	15	300
Practical nursing	0	0	7	317	11	187	10	200
Home economics [5]	[6] 219	[6] 4,392	24	475	64	1,415	120	2,250
Child care	0	0	16	296	40	881	75	1,500
Clothing service	0	0	1	23	6	52	15	300
Food service	0	0	4	88	17	462	28	420
Home furnishing, equipment, and service	0	0	3	68	1	20	2	30
Homemaking [7]	(219)	(4,392)	465	6,486	801	12,153	950	18,000
Consumer economics [7]	0	0	0	0	(43)	(572)	(75)	(750)

See footnotes at end of table.

TABLE 6.—VOCATIONAL EDUCATION ENROLLMENTS IN PROGRAM AREAS BY FISCAL YEARS—ADULT PROGRAMS—Continued

Program areas and course offerings	1963[1]		1968		1972		1977	
	Number	Enrollment	Number	Enrollment	Number	Enrollment	Number	Enrollment
Public service occupations	0	0	0	0	34	5, 316	50	8, 320
Fireman training	0	0	0	0	21	4, 728	30	7, 000
Law enforcement	0	0	0	0	13	588	20	1, 320
Special programs	0	0	0	0	0	104	0	932
Disadvantaged (Pt. B)[8]	0	0	0	0	0	22	0	797
Handicapped (Pt. B)[8]	0	0	0	0	0	82	0	135
Technical occupations	2	328	18	413	14	295	24	500
Aircraft maintenance technician	0	0	0	0	0	0	1	15
Electronics (communication)	0	0	0	0	0	0	4	80
Electronics technology	0	0	17	398	6	112	5	125
Highway technology	0	0	1	15	0	0	1	20
Instrumentation	0	0	0	0	0	0	1	20
Technical drafting	0	0	0	0	0	0	4	80
Tool and die design	0	0	0	0	0	0	4	80
Mechanical technology	0	0	0	0	8	183	4	80
Trades and industry	728	14, 244	1, 068	26, 002	788	20, 107	1, 131	22, 000
Air-conditioning	0	0	3	85	39	735	10	200
Appliance repair	0	0	0	0	1	26	2	50
Auto body	0	0	3	69	28	423	13	250
Auto mechanics	0	0	20	246	63	681	18	350
Motor vehicle	0	0	216	6, 469	29	527	30	600
Auto air-conditioning	0	0	0	0	0	0	2	40
Aviation occupation	0	0	0	0	1	22	1	20
Office machine repair	0	0	0	0	1	13	2	40
Commercial arts	0	0	0	0	1	25	1	20
Carpentry	0	0	10	182	31	534	18	350
Electricity	0	0	29	749	28	758	18	450
Masonry	0	0	3	65	1	9	1	20
Painting	0	0	3	55	0	0	1	20
Plumbing	0	0	19	306	20	341	15	300
Custodial service	0	0	14	234	1	15	3	60
Diesel mechanic	0	0	0	0	10	138	8	150
Drafting	0	0	6	152	6	174	7	175
Electrical occupation	0	0	0	0	23	663	18	450
Electronics occupation	0	0	1	28	3	75	2	50
Mine foreman training	0	0	21	385	12	180	10	200
Graphic arts occupation	0	0	6	101	9	135	3	60
Industrial maintenance and repair	0	0	0	0	1	34	1	30
Metal working occupation	0	0	111	2, 292	106	2, 859	100	2, 000
Machine tool operator	0	0	1	18	0	0	5	100
Sheet metal	0	0	10	145	0	0	5	100
Tool and die	0	0	3	51	0	0	5	100
Fireman training	0	0	23	3, 651	31	4, 082	0	0
Quantity food occupation	0	0	1	14	1	10	3	50
Refrigeration	0	0	3	57	12	163	8	150
Small engine repair	0	0	0	0	21	485	15	300
Tailoring	0	0	1	20	0	0	2	50
Industrial sewing	0	0	1	24	0	0	5	100
Other	0	0	560	10, 604	319	7, 000	809	15, 165
Total	1, 299	27, 293	1, 956	42, 681	2, 686	58, 654	3, 615	79, 657
Grand total	2, 196	79, 124	3, 251	110, 003	4, 998	170, 245	7, 138	231, 328

[1] Source: "Report of the Superintendent of Public Instruction—For the biennium ending June 30, 1963." Figures cannot be broken down further.

[2] 1977 enrollment figures include only 11th and 12th grades. 9th and 10th grade figures are reflected in Agribusiness I, II.

[3] Includes 9th and 10th grade enrollments only.

[4] Figures cannot be broken down further.

[5] Figures in this section not intended to total.

[6] No distinction made between "Gainful" and "Useful."

[7] Categorized as "Useful." All other figures categorized as "Gainful."

[8] Some duplication in other figures in column; no duplication for 1977 figures.

b. General Description

In the decade since 1963, vocational education in Kentucky has been increasing in importance as an integral part of the total public school system. The major objectives of vocational education as a part of the total educational system of the state are to:

(1) Develop comprehensive programs of vocational education to help each individual assess his interests, capabilities, and needs and then assist each individual in reaching the level of vocational attainment to which he or she aspires and which is consistent with reasonable expectations.

(2) Develop an understanding of and appreciation for career opportunities in the world of work and the preparation needed to enter and progress in a chosen occupational career.

(3) Develop the vocational competencies needed by each individual who is preparing to engage in a particular occupational field or specific occupation.

(4) Develop the competencies in human relations which are essential for success in an occupational career.

(5) Develop the abilities needed to exercise and follow effective leadership in fulfilling occupational, social, and civic responsibilities.

The vocational education program in Kentucky has expanded from a total enrollment of 79,124 in 1963 to a total enrollment of 170,245 in 1972. Although all program levels (secondary, postsecondary, and adult) have increased, the greatest percentage increase has been at the secondary level with an increase from 47,933 to 99,169. This expansion has been possible by the increased support of vocational education by the State legislature, a series of Kentucky Governors, and increased Federal financial support. The greatest need for expansion appears to be at the postsecondary level where the increase has been only from 3,898 in 1963 to 12,844 in 1972.

The State has promoted the development of a statewide system of vocational education through the construction of adequate facilities to accommodate comprehensive vocational education programs that would be within reach of everyone who should benefit from them. Federal, State, and local funds have been used in the construction of the new facilities. Most of the Federal funds in recent years have come from the Appalachian Regional Commission and the Economic Development Administration. The Vocational Education Amendments of 1968 continue to serve as the basic model around which vocational education is offered in Kentucky. However, the level of funding has inhibited the growth of programs at the rate desired by the leadership in government and education at the State and local levels.

A major change has occurred in vocational education through a broadening of program offerings and the development of more comprehensive vocational education programs.

Through comprehensive program planning by each local educational agency and at the regional and State levels, existing programs, services, and activities have been reviewed, revised, and adjusted to meet the changing vocational education needs of the people and the manpower requirements of the labor market. For example, in 1963 agriculture was primarily oriented to training people for farming occupations. The leadership was slow to change the program in the mid 1960's which resulted in a decline in the enrollment through 1968. However, the initiation of horticulture, agriculture mechanics, agricultural sales and services, forestry, and diversified agricultural programs has changed the trend. The enrollment in 1972 indicates a significant increase over that of 1968. The title of this program area has been changed from agriculture to agribusiness.

Business and office education was not accepted as a vocational education program in Kentucky until 1965. This program area has grown rapidly since 1965. In 1972 there were more than 23,000 students in the program. The major emphasis was placed on secretarial, clerical, accounting, junior business management, and data processing occupational areas. With increased State and Federal support, this program has the potential for substantial growth during the decade of the 1970's.

Although distribution and marketing education has been in existence since the 1930's, growth in this area was very slow until 1968. In recent years, this area of vocational education has expanded to nearly 12,000 students. The program was changed at the secondary level from a 1-year program to a 3-year program. A midmanagement program has been implemented at the postsecondary level.

The expansion of health occupations has resulted in a change from a program in 1963 which was almost totally practical nurse training to a more diversified program designed to meet the training needs of paraprofessionals in the entire health field. A unique program introduced at the secondary level has become very popular in Kentucky. More than 500 students are now enrolled in the program to obtain health assistant skills by the time they graduate. They will also have an opportunity to explore the many careers available in the health field. Postsecondary programs now cover such areas as: Dental assistant, certified lab assistant, medical assistant, medical secretary, radiologic technology, surgical technician, and associate degree nursing.

The home economics program has expanded from 1963 to 1972; however, the programs in gainful home economics are just beginning to be accepted by local educational agencies. The home economics program includes semester and year courses in consumer education, family living, child development, clothing management, and food management. Wage-earning classes are now provided in child care services, clothing services, food service, and home and community services.

Although vocational training for public service occupations was not established as a separate program area in the Bureau of Vocational Education until 1973, there have been some programs offered which were reported under trades and industry. The program is currently being supported entirely by State funds. Program emphases include fireman training, law enforcement training, and a secondary orientation program for public service occupations.

A special unit on practical arts has been established in the Bureau of Vocational Education to implement career orientation and exploration programs at the middle school level (grades 7, 8, and 9) throughout Kentucky. Much curriculum development has been done at this level and models for implementation are being designed and tested by several local educational agencies across the State. It is intended that the experiences received by the students at this level will enable them to make sound and informed career decisions which will lead to appropriate vocational preparation for job entry and occupational advancement in the world of work.

Trade and industrial education programs in Kentucky have expanded to include: Air conditioning and refrigeration, aircraft maintenance technician, appliance repair, auto body repair, auto mechanics, barbering, carpentry, commercial art, commercial foods, cosmetology, diesel mechanics, drafting, dry cleaning, electricity, heavy equipment, machine shop, masonry, meat cutting, mine maintenance, office machine repair, plumbing, printing, radio and television repair, service station attendant, sheet metal, small engine repair, tool and die making, upholstery, welding, industrial electronics, communication electronics, highway technology, instrumentation, and tool and die design. Most of these programs are offered to secondary and postsecondary students.

Special programs have been designed to meet the needs of disadvantaged and handicapped students who cannot succeed in regular vocational education programs. The demand for programs in this area is increasing each year. In most instances, these programs have proven to be very successful.

In 1963, the vocational education program in Kentucky was heavily oriented to agriculture, home economics, and trades and industry with limited program offerings in each of these areas. The Vocational Education Act of 1963 and the Amendments of 1968 have provided a stimulus to the State and local educational agencies to broaden the program offerings to cover practically all occupational areas. This is the primary reason for increased enrollments in vocational education in 1972.

With adequate funding, Kentucky could definitely provide appropriate vocational training programs for the people who want them and could benefit from them in all communities of the State. The goal of serving all persons who need vocational education in Kentucky is yet to be achieved, but much progress has been made toward that end.

c. Postsecondary Courses

Postsecondary vocational and technical education programs have been offered in the State vocational-technical schools; area vocational education centers; community colleges; technical institutes; correctional institutions; and universities throughout the Commonwealth of Kentucky. The number of institutions in all of these categories have increased, with the exception of secondary schools, during the period since the Congress passed the Vocational Education Act of 1963. There has been some decline in the number of secondary schools in the State due to consolidation.

In Kentucky, in fiscal year 1973, there were available for postsecondary vocational and technical education programs: 13 State vocational-technical schools; 58 area vocational education centers; 319

secondary schools; 13 community colleges; one technical institute; five vocational centers in State correctional institutions; one 4-year college; and seven universities.

Postsecondary vocational and technical education programs have been developed for three categories of students—(1) Those enrolled as regular postsecondary students; (2) those identified as disadvantaged students because of an academic, social, or economic handicap which interfered with their regular educational achievement; and (3) those identified as handicapped students because of a physical or mental handicap which interferred with their regular educational achievement. It has been recognized that the disadvantaged and handicapped students need special attention, special instructional media, considerable individualized instruction, and constant motivation. However, it is believed that, to the extent possible, they should be placed in the normal educational environment to receive their vocational education. We have attempted to use this approach to the maximum extent.

Postsecondary vocational and technical education in Kentucky has experienced a steady growth since 1963, but it is not anywhere near the program that it should be to meet the vocational education needs of those 16 years old or older who have dropped out of secondary school or graduated and still they need to be enrolled in a postsecondary vocational or technical program full time to get properly prepared for job entry. This level of education in Kentucky has had a very low priority. It needs to be raised to a higher level of support and the enrollment should be increased considerably.

In 1963, there were only 3,898 students enrolled in postsecondary vocational-technical education programs. The number was increased to 12,844 in 1972. It is estimated that the enrollment should be about 21,575 students in 1977.

The enrollment of postsecondary students by types of institutions since 1963, with projections to 1977, are shown in table 7.

TABLE 7.—POSTSECONDARY SCHOOL ENROLLMENTS IN VOCATIONAL AND TECHNICAL EDUCATION BY TYPES OF INSTITUTIONS FOR THE DESIGNATED FISCAL YEARS

Type of instruction	Postsecondary school enrollment			
	1963	1968	1972	1977
Secondary schools	[1] 891	(2)	(2)	(2)
State vocational-technical schools	874	1,236	5,704	9,315
Area vocational education centers	859	938	1,047	1,200
Technical institutes	(3)	(3)	(3)	1,500
Community colleges	239	483	845	1,030
4-year colleges and universities [4]	1,035	2,282	5,248	8,530
Total	3,898	4,939	12,844	21,575

[1] Agriculture and home economics programs.
[2] Used for secondary and adult programs.
[3] Included in community college through 1972.
[4] Includes vocational education teacher preservice and inservice.

d. Disadvantaged Students (Part B Support)

Under provisions of the Vocational Education Act of 1963, as amended in 1968, provisions are made to serve disadvantaged persons "who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program." The act indicates that for any fiscal year not less than 15 percent of the total allotment of "part B" funds shall be used to serve the needs of the disadvantaged, except the requirement may be waived by the commissioner if he finds that the requirement imposes a hardship or is impractical in its applications. Kentucky, to date, has never requested that this provision be waived by the commissioner. In fact, it is strongly believed that the provision is well conceived and sound. The level of financial support needs to be gradually increased as the states acquire the understandings and competencies to develop effective programs to serve this much neglected segment of our population. They need relevant life career development through an appropriate vocational education experience which will prepare them for a productive role in the economy and will remove them as likely candidates as welfare recipients. In many cases, the difference is personal motivation and relevant vocational education.

Prior to fiscal year 1969, Kentucky placed some emphasis on planning and promoting programs for persons with special needs. Program implementation was supported primarily with vocational units from the State foundation program for elementary and secondary education. The first effort to serve the disadvantaged was through the organization of a special program called Vocational Opportunity Project. This program was a cooperative undertaking between the Bureau of Vocational Education in the State Department of Education and the Division of Public Assistance in the Department of Economic Security. In this project, career orientation and vocational education were provided for 500 persons who were public assistance recipients.

During fiscal year 1972, vocational education programs, services, and activities for the disadvantaged were expanded in the local school districts, State vocational-technical schools, area vocational education centers, community colleges, 4-year colleges, and universities.

Under the provisions of "part B" of the Amendments of 1968, the 15 percent set aside funds for the disadvantaged enabled Kentucky to serve a total of 24,457 disadvantaged persons. This represents an increase of 12,723 persons served over that of fiscal year 1971. Of the 24,457 disadvantaged persons served in 1972, there were 19,476 secondary students, 4,471 postsecondary students, and 510 adults.

Priority was placed on the utilization of special funds to provide supportive services to 11,503 disadvantaged students enrolled in regular or modified classes within the various vocational education program areas. These classes utilized special instructional materials, teacher aides, special tutors, and paraprofessionals. Remedial instruction was provided by specialized teachers and coordinators in the learning centers. Special counseling was included in many of the programs. Extra class time was provided for tutoring and instructional assistance.

Special vocational programs were designed when it was determined that the disadvantaged students could not succeed in the regular programs of vocational education. Of the 11,634 disadvantaged students served through special programs, 11,569 were at the secondary level and 65 at the postsecondary level. The special programs include orientation to the world of work, exploration in the world of work, outreach projects, and vocational education evaluation mobile units.

Programs for the disadvantaged have been coordinated with other agencies such as the Department of Corrections, Department of Child Welfare, Urban League, and Department of Commerce.

Emphasis has been placed on staff development for working with the disadvantaged through inservice programs and workshops.

(1) A workshop was held for 100 participants on "expanding postsecondary educational opportunities for black students." Sponsors of the workshop were the Southern Regional Education Board and the community colleges and State vocational-technical schools in Kentucky.

(2) Eighteen persons from Kentucky, who are working with programs for the disadvantaged, attended the AMIDS workshop in Montgomery, Ala.; and 49 persons attended the follow-up AMIDS conference which was held in Louisville, Ky.

(3) A workshop for learning center coordinators of State vocational-technical schools and community colleges was conducted with approximately 22 coordinators and assistant coordinators in attendance.

The need for curriculum materials relevant to the unique needs of disadvantaged people made it necessary for several curriculum development workshops to be initiated in cooperation with the Curriculum Development Center for Vocational Education which is located at the University of Kentucky. The workshops involved eight special vocational education teachers from various sections of the State. Materials developed in the workshops were field tested during fiscal year 1973.

In order to serve more disadvantaged persons in vocational education, emphasis must be given to:

(1) Expanding opportunities for cooperative work experience.

(2) Providing more exploratory experiences to ensure wise career choices and appropriate placement in vocational education programs.

(3) Designing and implementing more relevant and effective inservice training programs on:

(a) Adapting curriculum materials to the real needs of the disadvantaged.

(b) Using individualized instructional methods more extensively.

(4) Strengthening communication channels with people who should be served by such programs; and agencies, organizations, and institutions which should be more involved in planning, developing, and implementing such programs.

TABLE 8.—ENROLLMENTS IN PROGRAMS PLANNED TO SERVE DISADVANTAGED STUDENTS SUPPORTED BY VOCATIONAL EDUCATION "PART B FUNDS" FOR DESIGNATED FISCAL YEARS

Type of program	Enrolments			
	1963 actual	1968 actual	1972 actual	1977 projected
Regular vocational education program			11,503	7,058
Special vocational education program			12,954	23,939
Teacher inservice			268	300
Total			24,725	31,297

c. Handicapped Students

Instructional programs, services, and activities for handicapped learners in vocational education increased from 1,602 in 1971 to 2,964 in 1972. On a project basis, modified vocational education programs or supportive-type services were offered to 831 learners within regular program areas of agriculture, business and office, distribution and marketing, health, home economics, and trades and industry. There were 424 students enrolled at the secondary level and 407 enrolled at the postsecondary level; whereas, 2,133 learners were enrolled in special vocational education programs where the focus was on orientation and exploration in the "world of work." Within the special programs, there were 1,573 secondary students, 478 postsecondary students, and 82 adults.

Priority has been given to learners who have been referred to vocational education from other agencies such as the Bureau of Rehabilitation Services and the Division of Special Education in the State Department of Education, Child Welfare, Mental Health, and the Department of Corrections.

One of the major achievements in this area has been the development of curriculum materials to use with handicapped students in level I programs, "orientation to the world of work." Three classroom teachers are developing units of instruction for "exploration in the world of work." These three teachers are working in conjunction with seven other teachers who are relating to the disadvantaged field in developing the curriculum materials.

Special programs for handicapped learners were conducted in local school districts, State vocational-technical schools, area vocational education centers, the State School for the Deaf, and community colleges.

Vocational education programs for adults who are handicapped has not been adequate during the life of this program. Local educational agencies have emphasized the need for the training to begin at the secondary level. Some constraints in program planning for adults are the many and varied types of handicapping conditions and the lack of concentration of persons by the various categories to establish vocational programs other than those established in institutional-type settings.

Programing for handicapped has included:

(1) Orientation to the "world of work."

(2) Exploration in the "world of work."

(3) Supportive services for handicapped individuals enrolled in regular programs.

(4) Inservice workshops for teachers on developing individualized instructional materials (learning packages).

(5) Staff development in conjunction with EPDA to prepare teachers to work with handicapped students.

(6) Development of curriculum materials for level I (orientation to the "world of work") and level II (exploration in the "world of work").

(7) Extending the services of a resource center for disadvantaged and handicapped as a part of the Curriculum Development Center for Vocational Education which is located at the University of Kentucky. The Resource Center is used by teachers and other personnel working with handicapped and disadvantaged.

Expanded opportunities for vocational programs in institutional-type settings are needed to provide necessary training for the handicapped as they become self-supporting individuals in society. The applications for programs, services, and activities for 1973 have exceeded the basic grant to the State for the handicapped by $522,946; therefore, it is estimated that 40.5 additional vocational units are needed within the next 5 years to meet the request for programs to satisfy the needs of the handicapped students in Kentucky.

The need for inservice and preservice training for teachers is a priority if programs are to function as conceptualized. Difficulties have also been experienced in program implementation due to the limited curriculum materials for the various categories of handicapped persons.

In working with other agencies, programs have been requested to serve those individuals who are clients of Workmen's Compensation. It is estimated that there are as many as 40,000 persons who will need vocational training. Personnel from mental health facilities have requested help in designing vocational education programs to meet the needs of their clients at the postsecondary and adult levels.

TABLE 9.—ENROLLMENTS OF HANDICAPPED STUDENTS IN REGULAR AND SPECIAL NEEDS PROGRAMS FOR CERTAIN DESIGNATED FISCAL YEARS

Type of program	Enrollments			
	1963 actual	1968 actual	1972 actual	1977 projected
Regular vocational education programs			831	3, 821
Special vocational education programs			2, 133	2, 551
Teacher inservice			325	400
Total			3, 289	6, 772

f. Adults

A total of 58,232 adults were enrolled in preparatory, supplementary, and apprenticeship vocational education programs in fiscal year 1972. There were 56,306 adults employed or temporarily unemployed. They were taking vocational training supplementary to their job requirement. There were 716 adults unemployed or employed in menial jobs and received training to enable them to change to a new occupation. There were 1,210 adult trainees serving as apprentices. They were taking courses related to their approved apprenticeship program. It is anticipated that the scope of apprenticeship training programs for adults will expand considerably in the next few years. The problems that have curtailed the growth of this program are now recognized at the national, State, and local levels. The emerging concerns regarding this situation are causing increased emphasis to be placed upon possible solutions to the problems and ways of improving and expanding this program. Long-range projections, based upon conservative estimates and available data, indicate that more than 66,000 employed adults will be needing training that is supplementary to their occupational employment by 1977. It is estimated that an additional 17,000 adults will be employed or temporarily unemployed and need job retraining for entry into new occupations. The apprenticeship training program will be increased by more than 1,850 trainees requiring apprentice-related training by 1977.

- Adult enrollees in vocational education have increased from 25,061 in 1963, to 58,232 in 1972. Although this appears too be a substantial increase, the growth has not been at the level anticipated by State leadership in vocational education. Priorities for disadvantaged, handicapped, postsecondary, as well as the other categorical aid programs, have caused local educational agencies to delay the implementation of much needed adult vocational education programs until sufficient funds are made available to conduct adequate secondary and postsecondary programs. Nevertheless, the adult programs in vocational education continue to provide upgrade and preparatory training for a large number of employed and unemployed adults needing and desiring such training.

Since 1962, the Manpower Development and Training Act, has supported institutional adult training programs for approximately 25,000 unemployed and under-utilized people in Kentucky. In fiscal year 1972, more than 2,650 trainees were served by the MDTA programs in Kentucky. The MDTA programs operate within the vocational education institutions of the State and utilize facilities equivalent to that of the regular vocational education postsecondary program. The adult programs of preparatory, supplementary, and apprenticeship training utilize facilities and personnel for a shorter duration. They complement the other vocational education programs in a community and make possible a fuller utilization of the available facilities for the benefit of the people. Since the same vocational education administrator is responsible in each region of the State for the total operation of vocational education programs that are offered, he uses his staff to provide the kinds of vocational education programs that will best serve the individual needs of potential adult enrollees.

With additional funding, the Bureau of Vocational Education, in the State Department of Education in Kentucky will be able to meet the needs of the projected enrollment anticipated for 1977.

TABLE 10.—ENROLLMENT OF ADULTS IN VOCATIONAL EDUCATION AND MANPOWER TRAINING PROGRAMS BASED ON THE STATUS OF THEIR EMPLOYMENT AND SOURCE OF FINANCIAL SUPPORT FOR CERTAIN DESIGNATED FISCAL YEARS

	Source of funding and enrollments							
	Vocational Education Act—part B funds				Manpower funds			
Type of program	1963 actual	1968 actual	1972 actual	1977 projected	1963 actual	1968 actual	1972 actual	1977 projected
Adult preparatory	(1)	710	716	1,200	2,631	2,632	2,650	2,764
Adult supplementary	(1)	35,884	56,306	58,257				
Adult apprenticeship	(1)		1,210	2,200				
Total	25,061	36,594	58,232	61,657	2,631	2,632	2,650	2,764

[1] No breakdown available.

g. Financing

(i) A detailed description of the method used for the distribution of part B funds among local educational agencies and other State agencies in Kentucky is included in the State plan for the Administration of Vocational Education in Kentucky. It is in part I—administrative provisions—in sections 3.0 through 3.27 on pages 61 through 79. (See exhibit g(i)A in the appendix of this report.)

The relative fiscal abilities of local educational agencies and the differences in costs among such agencies is accounted for in the basic data used to calculate the State's minimum foundation program apportionment to local school districts. This data is built into the vocational education distribution formula which is explained in the State plan on page 77 in paragraph 3, "District Measure of Reasonable Local Tax Effort." An example of the actual distribution of Federal part B funds, to local educational agencies, based on the formula in the State plan, is shown in exhibit g(i)B in the appendix of this report.

The variable matching of local and State funds with Federal funds is handled on an individual project basis and is determined primarily on need and availability of State, Federal, and local funds. The relative ability of local educational agencies to support their vocational education needs and the costs of their proposed programs, services, and activities are used to determine the type and degree of funding that can be employed.

(ii) A breakdown of the dollar amounts and percentages of Federal and State funds going to certain areas or locations is shown in table 11.

The only city in Kentucky with a population in excess of 250,000 is the city of Louisville with a 1970 census count of 361,958. The overall per capita expenditure in Louisville in 1972, for vocational education amounted to $11.17 per person which compares favorably with a statewide average of $11.39 per person.

A disparity exists between the Appalachian Region and the rest of the State. For example, Appalachia has 875,498 inhabitants, or 27 percent of the State's population. The per capita expenditure of Federal, State, and local funds in this area is $18.74 per person, or 45 percent of all vocational funds, including Appalachian aid. Appalachia has a per capita income of less than $2,000 as compared with the State average of $3,036. Due to this low income level, additional funds such as those from the Appalachian Regional Commission are made available to this area. Such additional funds distort the per capita expenditure picture.

The balance of the State, excluding Louisville and Appalachia, has a population of 1,981,241, or 62 percent of the State's total population. The rest of the State received a total of $16,203,633, or $8.18 per person in 1972.

In analyzing the distribution of Federal, State, and local funds to local educational agencies and making comparisons as to how the different sections of the State are served, we find the following results:

(1) On a statewide basis, 3,218,706 citizens of Kentucky receive $36,657,331 in vocational education related funds. This is an average of $11.39 per person.

(2) In Louisville, 361,958 citizens receive $4,044,437 in vocational education related funds. This is an average of $11.39 per person.

(3) In the 49 Appalachian counties, the 875,498 citizens receive $16,409,261 in vocational education related funds. This is an average of $18.74 per person.

(4) In the remainder of the State, the 1,981,250 citizens receive $16,203,633 in vocational education related funds. This is an average of $8.18 per person.

(5) These distributions of funds indicate the following:

(a) Louisville has 11 percent of the State's population and receives 11 percent of the vocational education dollars spent.

(b) The Appalachian section of the State has 27 percent of the State's population and receives 45 percent of the vocational education dollars spent.

(c) The section of the State, excluding Louisville and Appalachia, has 62 percent of the State's population and receives 44 percent of the vocational education dollars spent.

A comparison of the sources of vocational education education funds in the annual budgets for Kentucky from fiscal year 1965, when the Vocational Education Act of 1963, was first implemented in the State, to fiscal year 1973 is shown in figure 2 and figure 3. The State support of vocational education has ranged from 44 percent in 1966 to 70 percent in 1970. The State support of the total budget in 1973 was 64 percent. Federal financial support has ranged from 20 percent in 1970 to 35 percent in 1966. The Federal support of the total budget in 1973 was 24 percent. Local financial support has ranged from 8 percent in 1965 and 1967 to 21 percent in 1966. The local support of the total budget in 1973 was 12 percent.

TABLE 11.—VOCATIONAL EDUCATION EXPENDITURES IN KENTUCKY WITH COMPARISON TO THE POPULATION, FISCAL YEAR 1972

	Comparisons of expenditures to the population					
Category	Dollar amount	Percent of dollar	Total population	Dollars per person	Percent of dollar	Percent of statewide population
Statewide			3, 218, 706			
Federal[1]	$11, 460, 628	31.0		$3.56		
State/local	25, 196, 703	69.0		7.83		
Total	36, 657, 331	100.0		11.39	100.0	100.0
Louisville area			361, 958			
Federal	1, 336, 950	33.0		3.96		
State/local	2, 707, 487	67.0		7.48		
Total	4, 044, 437	100.0		11.17	11.0	11.0
Appalachia			875, 498			
Federal[1]	4, 384, 856	27.0		5.01		
State/local	12, 024, 405	73.0		13.73		
Total	16, 409, 261	100.0		18.74	45.0	27.0
Non-Appalachian, non-Louisville			1, 981, 250			
Federal	5, 738, 822	35.0		2, 90		
State/local	10, 464, 811	65.0		5.28		
Total	16, 203, 633	100.0		8.18	44.0	62.0

[1] Federal funds include Appalachian construction funds of $2,178,243. Excluding funds from Appalachian aid reduces the percent of the statewide Federal dollar from 31 percent to 26 percent and increases the State/local percent from 69 percent to 74 percent.

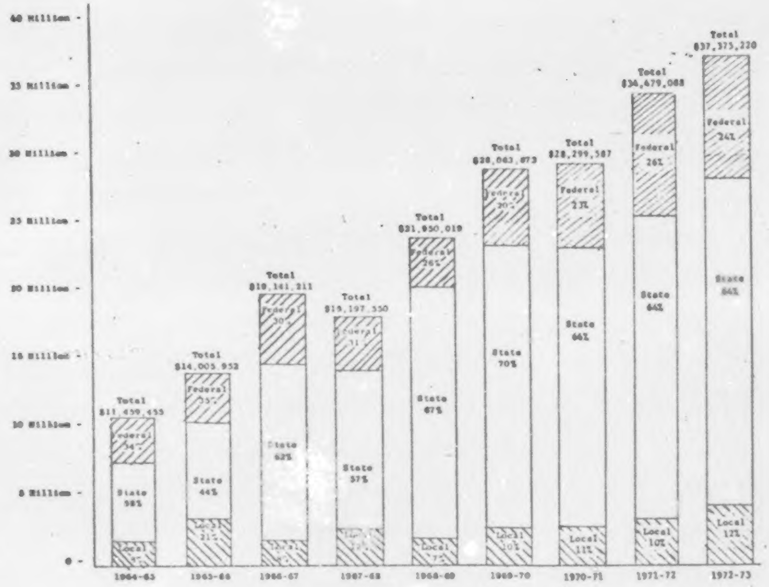


Figure 2 - SOURCES FOR KENTUCKY VOCATIONAL EDUCATION FUNDING
1964-65 THROUGH 1972-73

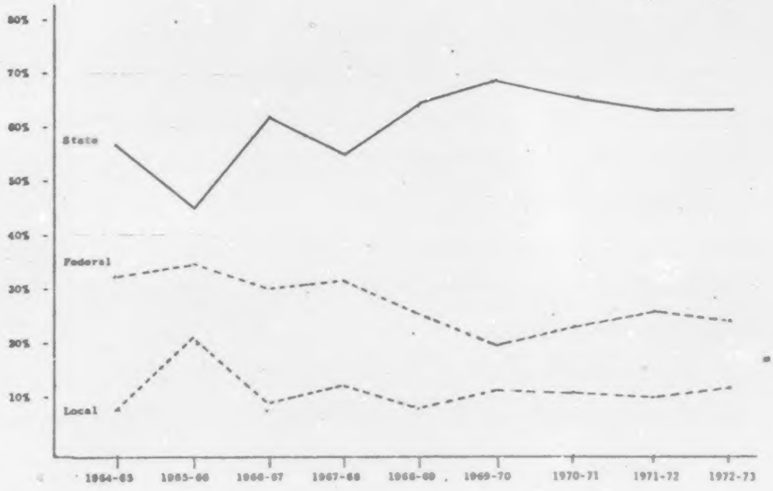


Figure 3 - CHANGES IN PERCENTAGES OF FUNDING SOURCES
FOR KENTUCKY VOCATIONAL EDUCATION 1964-65 THROUGH 1972-73

h. Construction and Equipment

Before 1963, the construction of vocational education school facilities were largely financed with local educational agency funds. The State-financed the State-owned and State-operated area vocational education schools. At that time, the State had constructed only three such schools. Local school districts across the State had constructed nine such schools and six area vocational education centers or satellite schools. The local school districts had also constructed the facilities required for home economics and agriculture programs in approximately 350 high schools.

The Vocational Education Act of 1963 provided the first Federal financial support to Kentucky for the construction of area vocational education school facilities. The State has also received Federal financial support from the Appalachian Redevelopment Act in the 49 Appalachian counties in eastern Kentucky and from the Economic Development Act for five area vocational education centers in the western part of the State.

Federal construction funds have been used to establish one technical institute and several State vocational-technical schools which are used primarily for postsecondary and adult vocational and technical programs, and area vocational education centers which are used during the regular school day primarily for secondary school students. They are also available for postsecondary and adult students in the late afternoon and evening.

Federal funds have been used to match State and local funds to pay for the construction of new buildings and acquisition, expansion, remodeling, and alteration of existing buildings. Such construction include shops, laboratories, related classrooms, equipment, and interest in the land on which the facilities are constructed.

Federal construction funds, matched with State and local funds, enabled Kentucky to build 79 new vocational facilities and expand four existing facilities since 1963. The location of these facilities and the secondary schools served by them are shown in figure 4. These new facilities have enabled the State to greatly expand vocational and technical education programs at the secondary, postsecondary, and adult levels. This has resulted in a significant increase in enrollments at all three levels. During this period, interest in vocational education has increased in all parts of the State and the demand for new vocational facilities has far exceeded the availability of funds.

Our present projections to 1977 indicate that we will need at least 29 new area vocational education school facilities and the expansion of at least four existing facilities. They will be needed to meet the increased demand for vocational and technical education programs across the State.

Investments made in the construction of area vocational school facilities, including equipment, from Federal, State, and local funds since 1963, and applications received for new facilities are shown in tables 12, 13, 14, 15, 16, and 17.

TABLE 12.—FUNDS INVESTED IN AREA VOCATIONAL SCHOOL FACILITIES FROM FEDERAL, STATE, AND LOCAL SOURCES, FISCAL YEARS 1963 THROUGH 1973 (VOCATIONAL EDUCATION ACT OF 1963 AND AMENDMENTS OF 1968—PART B FUNDS)

Fiscal year	Total	Source of funds		
		Federal	State	Local
1963	1,100,684	0	839,228	261,456
1964	385,000	0	0	385,000
1965	1,869,789	934,984	247,527	687,368
1966	1,150,466	575,233	0	575,233
1967	3,752,421	1,996,142	1,490,824	265,455
1968	2,721,846	1,360,923	310,923	1,050,000
1969	1,443,704	721,852	271,852	450,000
1970	2,076,877	1,038,439	1,038,438	0
1971	1,600,000	800,000	0	800,000
1972	3,826,984	1,474,951	352,033	2,000,000
1973	1,100,000	550,000	0	550,000
Total	21,027,771	9,452,434	4,550,825	7,024,512

TABLE 13.—FUNDS INVESTED IN AREA VOCATIONAL SCHOOL FACILITIES FROM FEDERAL, STATE, AND LOCAL SOURCES, FISCAL YEARS 1963 THROUGH 1973 (APPALACHIAN REDEVELOPMENT ACT FUNDS)

Fiscal year	Total	Source of funds		
		Federal	State	Local
1965	324,798	162,399	0	162,399
1966	1,627,241	1,184,695	0	442,546
1967	4,337,609	3,454,871	482,019	400,719
1968	1,835,090	1,468,072	123,448	243,570
1969	3,627,315	2,901,852	243,853	481,610
1970	3,481,220	2,801,656	347,402	332,162
1971	300,000	240,000	0	60,000
1972	2,380,000	1,904,000	370,000	106,000
1973	2,462,810	1,850,248	150,000	462,562
Total	20,376,083	15,967,793	1,716,722	2,691,568

TABLE 14.—FUNDS INVESTED IN AREA VOCATIONAL SCHOOL FACILITIES FROM FEDERAL, STATE, AND LOCAL SOURCES, FISCAL YEARS 1963 THROUGH 1973 (ECONOMIC DEVELOPMENT ACT FUNDS)

Fiscal year	Total	Source of funds		
		Federal	State	Local
1971	650,000	470,000	0	180,000
1972	1,711,200	1,074,560	0	636,640
1973	918,000	550,800	0	367,200
Total	3,279,200	2,095,360	0	1,183,840

TABLE 15.—FUNDS INVESTED IN AREA VOCATIONAL SCHOOL FACILITIES BY SOURCE OF FEDERAL FUNDS, FISCAL YEAR 1963 THROUGH 1973

Source of Federal funds	Total	Source of funds		
		Federal	State	Local
Vocational Education Act, "Part B"	$21, 027, 771	$9, 452, 434	$4, 550, 825	$7, 024, 512
ARC	20, 376, 083	15, 967, 793	1, 716, 722	2, 691, 568
EDA	3, 279, 200	2, 095, 360	0	1, 183, 840
Total	44, 683, 054	27, 515, 587	6, 267, 547	10, 899, 920

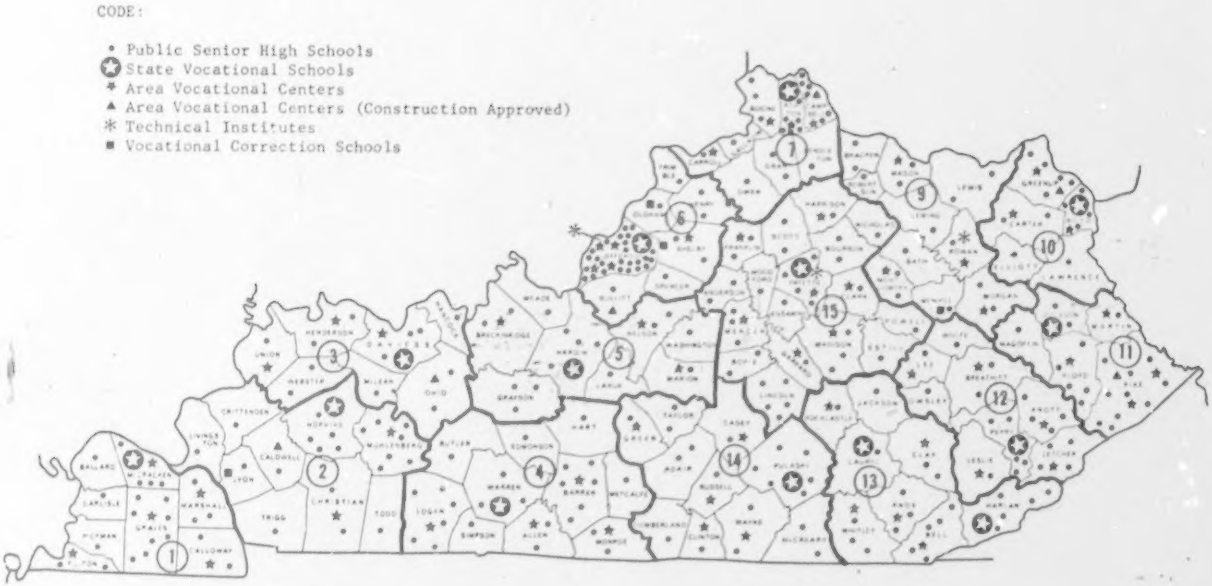
TABLE 16.—FUNDS INVESTED IN EQUIPMENT FOR AREA VOCATIONAL SCHOOL FACILITIES FROM FEDERAL, STATE, AND LOCAL SOURCES, FISCAL YEARS 1963 THROUGH 1973

Fiscal year	Source of funds					
	Total	Federal "Part B"	Appalachian	MDTA	State	Loca
1963	$272, 157	$36, 943	0	$200, 000	$35, 214	0
1964	720, 515	57, 191	0	619, 000	44, 324	0
1965	1, 340, 837	1, 122, 873	0	200, 000	17, 964	0
1966	639, 308	464, 229	0	175, 000	0	$79
1967	1, 000, 812	306, 222	0	100, 000	555, 319	239, 171
1968	985, 166	457, 942	0	25, 000	255, 606	246, 618
1969	1, 514, 203	551, 317	0	25, 000	937, 886	0
1970	2, 643, 101	313, 124	$309, 534	25, 000	1, 682, 318	313, 124
1971	2, 687, 699	427, 272	310, 362	25, 000	1, 598, 046	327, 019
1972	2, 919, 818	1, 755, 413	360, 471	25, 000	398, 667	380, 321
1973	2, 748, 919	600, 000	50, 000	44, 650	1, 501, 093	553, 176
Total	17, 472, 535	6, 092, 526	1, 030, 314	1, 463, 650	7, 026, 437	1, 859, 608

TABLE 17.—APPLICATIONS RECEIVED FOR VOCATIONAL CONSTRUCTION AND EQUIPMENT, FISCAL YEARS 1974 THROUGH 1977

Location of facility	Total cost	Source of funds			Year
		Federal	State	Local	
Louisville Technical Institute	$12, 000, 000	$5, 000, 000	$5, 000, 000	$2, 000, 000	1974
Equipment	5, 000, 000	2, 500, 000	2, 500, 000	0	
Elizabethtown State Vocational-Technical School	1, 200, 000	600, 000	600, 000	0	1974
Equipment	300, 000	150, 000	150, 000	0	
Owensboro (purchase and renovation)	600, 000	300, 000	300, 000	0	1974
Equipment	100, 000	50, 000	500, 000	0	
Jefferson State Vocational-Technical School	2, 500, 000	1, 250, 000	1, 250, 000	0	1974
Equipment	800, 000	400, 000	400, 000	0	
Northern Kentucky Area Vocational Education Center	1, 200, 000	600, 000	600, 000	0	1974
Equipment	300, 000	150, 000	150, 000	0	
Bullitt County Area Vocational Education Center	750, 000	375, 000	0	375, 000	1974
Equipment	160, 000	80, 000	80, 000	0	
Ohio County Area Vocational Education Center	500, 000	250, 000	0	250, 000	1974
Equipment	160, 000	80, 000	80, 000	0	
Caldwell County Area Vocational Education Center	500, 000	250, 000	0	250, 000	1974
Equipment	150, 000	75, 000	75, 000	0	
Thomas Jefferson Area Vocational Education Center	1, 200, 000	600, 000	0	600, 000	1974
Equipment	400, 000	200, 000	0	200, 000	
Christian County Area Vocational Education Center	250, 000	125, 000	0	125, 000	1974
Equipment	50, 000	25, 000	25, 000	0	
Henderson, Ind., Area Vocational Education Center	250, 000	125, 000	0	125, 000	1974
Equipment	50, 000	25, 000	25, 000	0	
Purchase State Vocational-Technical School	1, 200, 000	600, 000	600, 000	0	1975
Equipment	400, 000	200, 000	200, 000	0	
Simpson County Area Vocational Education Center	500, 000	250, 000	0	250, 000	1975
Equipment	150, 000	75, 000	75, 000	0	
Meade County Area Vocational Education Center	500, 000	250, 000	0	250, 000	1975
Equipment	150, 000	75, 000	75, 000	0	
Glasgow School for Practical Nurses	234, 000	117, 000	117, 000	0	1975
Equipment	40, 000	20, 000	20, 000	0	
Powell County Area Vocational Education Center	[1] 500, 000	400, 000	0	100, 000	1975
Equipment	[1] 150, 000	120, 000	30, 000	0	
Jackson County Area Vocational Education Center	[1] 500, 000	400, 000	0	100, 000	1975
Equipment	[1] 150, 000	120, 000	30, 000	0	
McCreary County Area Vocational Education Center	[1] 500, 000	400, 000	0	100, 000	1975
Equipment	[1] 150, 000	120, 000	30, 000	0	
Pike County (Millard) Area Vocational Education Center (exp.)	[1] 250, 000	200, 000	0	50, 000	1976
Equipment	[1] 80, 000	64, 000	16, 000	0	
Montgomery County Area Vocational Education Center (exp.)	[1] 250, 000	200, 000	0	50, 000	1976
Equipment	[1] 80, 000	64, 000	16, 000	0	
State Fire Service Training Center (Frankfort)	[1] 1, 500, 000	1, 200, 000	300, 000	0	1976
Equipment	[1] 430, 000	344, 000	86, 000	0	
Webster County Area Vocational Education Center	500, 000	250, 000	0	250, 000	1976
Equipment	150, 000	75, 000	75, 000	0	
Ashland State Vocational-Technical School	[1] 600, 000	480, 000	120, 000	0	1977
Equipment	[1] 200, 000	160, 000	40, 000	0	
Lawrence County Area Vocational Education Center	[1] 500, 000	400, 000	0	100, 000	1977
Equipment	[1] 150, 000	120, 000	30, 000	0	
Magoffin County Area Vocational Education Center	[1] 500, 000	400, 000	0	100, 000	1977
Equipment	[1] 150, 000	120, 000	30, 000	0	
Monroe County Area Vocational Education Center (exp.)	[1] 250, 000	200, 000	0	50, 000	1977
Equipment	[1] 80, 000	64, 000	16, 000	0	
Boyle County Area Vocational Education Center	800, 000	400, 000	0	400, 000	1977
Equipment	200, 000	100, 000	100, 000	0	
Fern Creek (Jefferson County) Area Vocational Education Center	1, 200, 000	600, 000	0	600, 000	1977
Equipment	400, 000	200, 000	0	200, 000	
Marion County Area Vocational Education Center (exp.)	250, 000	125, 000	0	125, 000	1977
Equipment	80, 000	40, 000	40, 000	0	
Grayson County Area Vocational Education Center	500, 000	250, 000	0	250, 000	1977
Equipment	150, 000	75, 000	75, 000	0	
Grant County Area Vocational Education Center	[1] 500, 000	250, 000	0	250, 000	1977
Equipment	150, 000	75, 000	75, 000	0	
Fleming County Area Vocational Education Center	[1] 500, 000	400, 000	0	100, 000	1977
Equipment	[1] 150, 000	120, 000	30, 000	0	
Adair County Area Vocational Education Center	[1] 500, 000	400, 000	0	100, 000	1977
Equipment	[1] 150, 000	120, 000	30, 000	0	
Total, construction	33, 359, 000	17, 522, 000	8, 987, 000	6, 850, 000	
Total, equipment	11, 260, 000	6, 206, 000	5, 054, 000	0	
Total cost	44, 619, 000	23, 728, 000	14, 041, 000	6, 850, 000	

[1] Appalachian funding.


CODE:
• Public Senior High Schools
State Vocational Schools
★ Area Vocational Centers
▲ Area Vocational Centers (Construction Approved)
✻ Technical Institutes
■ Vocational Correction Schools
1
2
3
4
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14
15

Figure 4 -- OVERVIEW OF STATE VOCATIONAL SCHOOLS AND AREA VOCATIONAL CENTERS INCLUDING THOSE IN OPERATION AND THOSE APPROVED BY THE STATE BOARD OF EDUCATION FOR CONSTRUCTION

OTHER FEDERAL PROGRAMS PUBLIC LAW 90-576

The Federal programs other than part B which were included in the Vocational Education Act of 1963 (Public Law 88-210) and the Vocational Education Amendments of 1968 (Public Law 90-576) have truly made it possible to develop well rounded comprehensive vocational education programs for practically every local educational jurisdiction in the commonwealth of Kentucky. The other Federal programs reinforce, broaden, and support the programs that are authorized under part B of the Act. Their continuing support needs to be assured, and financial support at the Federal level needs to be expanded because of their influence on the total program of vocational education and manpower development.

a. Exemplary Programs and Projects

It is the purpose of implementing exemplary programs and projects in vocational education to broaden occupational aspirations and opportunities for youth, with special emphasis given to youth who have academic, social, economic, or other handicaps. It is the intention of these programs and projects to familiarize students with the broad range of occupations for which special knowledge, attitudes and skills are required and the requisites for careers in such occupations. Such efforts must pertain to such aspects of program development as orientation, exploration, and motivation which leads to realistic career decisions, curriculum development, occupational guidance and counseling and personnel development at the preservice and inservice levels.

It is believed that improved policies, procedures, and models can be conceptualized, designed, tested, and implemented to improve and make more effective vocational education and career education programs in light of present day requirements in the world of work and in other areas of social responsibility.

In Kentucky the major thrust of our exemplary efforts during the past years and perhaps for the years projected to 1977 have been focused on the development of vocational education as an integral part of career education. We see career education as an educational process extending from early childhood to the end of the productive life of adults. It is concerned with life career development which is a life-long process that will largely determine what each individual will do with his life with respect to his participation in the economy and in other areas of social responsibility. A suggested career education curriculum pattern for Kentucky is shown in figure 5.

We believe that vocational education must be a visible and viable part of any successful career education program. In the continuum of the educational process, vocational education has a definite place at the orientation, exploration, and preparation levels. Therefore, it is important that an exemplary effort be made in Kentucky to determine what pattern of career education best suits the needs, aspirations, and capabilities of the people. This is what we are attempting to do through exemplary programs and projects.

Initially, there were three exemplary career education projects started in Kentucky with part D funds. They have completed their 3 year of operation in fiscal year 1973. The commissioner's share of Kentucky's part D funds was used to support a career education project at Pikeville. It was designed to test a model extending from the 1 grade through the 12th grade. The State's share of the part D funds was used to support two career education projects—one in the Clay County school system, and one in the Henderson County school system. Two additional career education projects were started as exemplary projects one year later in the Bowling Green Independent School District and in the Newport Independent School District. They have completed their second year of operation. All of the projects mentioned are organized to design and test a model that extends from the first grade to the 12th grade. The project reports indicate that the enrollments in these projects are as follows: Pikeville—1,266 students; Clay County—903 students; Henderson County—5,512 students—Bowling Green—1,034 students; and Newport—500 students. This makes a grand total of 9,215 students enrolled. It is expected that the total enrollment will increase as the programs are expanded in these school districts.

Upon examining the present status of career education and attempting to evaluate our future needs, it appears that a considerable portion of our exemplary efforts as we move through 1977 will involve greater in-depth development of the various phases of career education. The first of these efforts will be the development and testing of several improved models for the career exploration phase, grades 7–9, of career education. The development of a system to provide these students with "hands on" experiences and activities is a challenge which we believe must be met.

As in the past, part C research funds will be combined with these part D exemplary funds to incorporate a research component into each project. This is essential if we are to identify the behavioral changes in knowledge, attitude, and skills, which are brought about as a result of these innovative projects.

In addition to the career education projects, Kentucky is developing a statewide comprehensive information system. When fully operational, the system will provide manpower demand data, manpower supply data, data on educational resources, and former student followup information.

Knowledge of the projected occupational manpower needs and the projected supply of manpower to fill the available jobs provides estimates of over and/or under supply by occupation, localized to a specific region in a relatively precise statistic. Another component which provides quantitative data to be integrated into the system as an influencing factor in decisionmaking is the availability status of educational resources. Effective utilization of personnel, facilities, equipment, and programs will determine to a great extent the efficiency with which the educational needs of the State can be met.

Without the assistance of Federal funds, it would have been impossible for Kentucky to have undertaken a project of this magnitude. The State is currently absorbing part of the developmental costs of the project, but continuation of funding from other sources is essential if the information system is to be fully developed and implemented throughout the State.

Each of these exemplary projects has required a significantly large amount of funds in the developmental and testing phases, followed by considerably smaller amounts in the operational phases. The part D exemplary funds have provided Kentucky these extra funds without forcing the curtailment of ongoing projects. Because of this, we believe these part D funds have made and will continue to make significant contributions to the educational opportunities of the people of Kentucky.

As in the past, we will rely heavily upon the active participation of advisory committees, consisting of lay citizens and educators throughout the State; and task forces, consisting of a cross section of vocational educators within the Bureau of Vocational Education, to assist us in establishing priorities for exemplary programs and activities. The priority items which these two advisory groups have assisted in identifying for the future include: (1) An intensive training program with open-entry and exit opportunities, (2) vocational orientation and career exploratory programs that afford every prevocational student the opportunity to explore his occupational interests and aptitudes, (3) an exchange program among educational staff and industrial personnel, (4) increased cooperative and work-study programs, and (5) the development of effective job placement and followup programs.

The Vocational Education Amendments of 1968 and the Kentucky State plan for the Administration of Avocational Education will continue to serve as the basic guides for the administration of these exemplary projects.

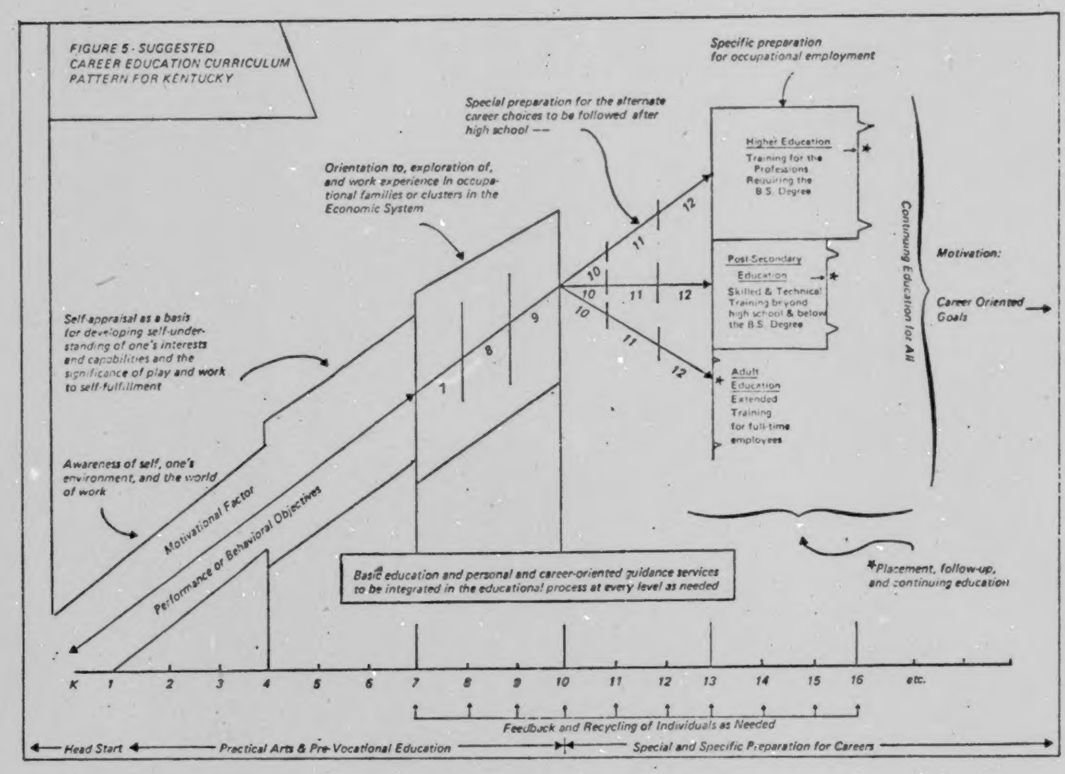


FIGURE 5 · SUGGESTED CAREER EDUCATION CURRICULUM PATTERN FOR KENTUCKY

Specific preparation for occupational employment
Special preparation for the alternate career choices to be followed after high school —
Orientation to, exploration of, and work experience in occupational families or clusters in the Economic System
Self-appraisal as a basis for developing self-understanding of one's interests and capabilities and the significance of play and work to self-fulfillment
Awareness of self, one's environment, and the world of work
Motivational Factor
Performance or Behavioral Objectives
Higher Education
Training for the Professions Requiring the B.S. Degree
Post-Secondary Education
Skilled & Technical Training beyond high school & below the B.S. Degree
Adult Education
Extended Training for full-time employees
Continuing Education for All
Motivation:
Career Oriented Goals
*Placement, follow-up, and continuing education
Basic education and personal and career-oriented guidance services to be integrated in the educational process at every level as needed
K 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 etc.
Feedback and Recycling of Individuals as Needed
Head Start
Practical Arts & Pre-Vocational Education
Special and Specific Preparation for Careers

b. Residential Vocational Education

The Congress made provisions in the Vocational Education Act of 1963 and the amendments of 1968 for the establishment and operation of residential vocational education schools. The purpose of these schools as indicated in the Federal acts is to demonstrate the feasibility and desirability of such schools in providing vocational education for youths 15 years of age and less than 21 years of age who need full-time study on a residential basis in order to benefit fully from such education.

It is intended that consideration of the need for residential vocational education schools shall take into account the needs of large urban areas having substantial numbers of youths who have dropped out of school or are unemployed. It would make adequate provisions for the appropriate selection of students without regard to sex, race, color, religion, national origin, or place of residence based entirely on the need for education and training in such schools. The programs to be offered would include occupational fields for which available labor market analyses indicate a present or continuing need for trained manpower and the courses would be appropriately designed to prepare the enrollees for entry into employment or advancement in such fields.

This portion of the Vocational Education Amendments of 1968, Part E, has never been funded by the Federal Government. It is strongly believed that there is a definite need for such schools in Kentucky to develop a sound comprehensive statewide vocational and technical education program so as to truly have a program which is of high quality and is realistic in the light of the actual needs of many school dropouts and unemployed youths who could be best served in the residential school environment.

At the present time, Kentucky has two State vocational-technical schools which have dormitory facilities; but the schools are not organized to serve as residential schools to serve the type of student that would be enrolled in a residential vocational school as described in the Vocational Education Amendments of 1968.

The West Kentucky State Vocational-Technical School has dormitories that will accommodate 156 males and 110 females. The Mayo State Vocational-Technical School has a dormitory that will house 100 male students. The dormitory at Mayo was built in the 1920's. It was constructed more than 40 years ago. The boys' dormitory at West Kentucky was constructed in 1930—43 years ago, and the girls' dormitory at West Kentucky was constructed in 1954. It is 19 years old. All of these dormitories are too small to accommodate a residential school program, and they are in need of extensive renovation.

Throughout the State of Kentucky there are many youth who are 15 to 21 years of age that need to be placed in a residential school environment on a 24-hour-per-day basis so they can receive the desired motivation and opportunities for basic, remedial, and vocational training that is required to make them productive, useful, and responsible citizens.

If part E of the Vocational Education Amendments of 1968 could be adequately funded on a sustaining basis, it is believed that Kentucky could easily justify three residential vocational schools. One should be established in the eastern section of the State to serve students from the Appalachian counties. One should be established in the central section of the State to serve the middle third of Kentucky which includes the urban areas of Louisville, Bowling Green, Covington, and Lexington. One should be established to serve the western section of the State to serve the western third of Kentucky. Each of these facilities should be constructed to provide a complete and wholesome living and educational environment. This would include vocational education shops; laboratories; related classrooms for basic, remedial, and vocational instruction; learning laboratory; living quarters or dormitories; cafeteria; and recreational facilities. It is anticipated that each school should serve from 600 to 1,200 students.

c. Consumer, Homemaking, and Occupational Home Economics

Section 161 of "part F" in the Vocational Education Amendments of 1968 states that:

> The Commissioner shall allot to each State an amount which shall be computed in the same manner as allotments to States under Section 103 except that there shall be no reservation of 10 per centum of such sums for research and training programs.

Consistent with the purposes of this part, the Kentucky State plan has set forth a program with Federal funds allotted to the State that will be expended for educational programs which:

(i) Encourage home economics to give greater consideration to social and cultural conditions and needs, especially in economically depressed areas. Social and cultural needs especially in economically depressed areas have been met in Kentucky in a variety of ways. Since fiscal year 1970, "part F" funds have been used in the purchase of equipment to enrich instruction for disadvantaged learners. Through this project it has been possible for home economics departments to acquire audiovisual equipment and equipment in the areas of housing and child development. During fiscal year 1972, 77 percent of the secondary consumer and homemaking teachers reported giving emphasis to meeting needs of the disadvantaged in one or more classes. In addition these teachers used individualized instruction including programmed learning techniques to meet the needs of the disadvantaged. A special effort was made to use visuals and demonstrations in their teaching.

An innovative project to find effective techniques to provide consumer and homemaking education for homemakers in economically depressed areas has continued since fiscal year 1971. The purpose of the project was to provide instruction on an individual or group basis to low-income homemakers in a center located within convenient walking distance of their homes. These centers, known as "Drop-In Centers," were planned to help homemakers feel free to drop in so they could get help and advice in a relaxed and informal atmosphere. They are equipped with low-cost furnishings, simple reading materials, and a variety of visual aids in all areas of home economics.

(ii) Encourage preparation for professional leadership. Professional leadership in home economics has been encouraged through a study of careers at the secondary level, Future Homemakers of

America, through its scholarship program, has made it possible for many girls to pursue a college degree in home economics. In addition, funds have been made available to the teacher education institutions training vocational home economics teachers.

(iii) Are designed to prepare youth and adults for the role of homemaker or to contribute to the employability of such youths and adults in the dual role of homemaker and wage earner. While all areas of homemaking have been emphasized in preparing youth and adults for the work of the home, special emphasis has been given to the areas of consumer education, nutrition education, and child development. For example, during fiscal year 1972, 85 percent of the secondary consumer and homemaking teachers reported giving emphasis to nutrition education through improved methods and new approaches.

Preparing youth and adults for the dual role of homemaker and wage earner has been emphasized by secondary, postsecondary, and adult teachers. Over 75 percent of the secondary and adult teachers gave help on the preparation of the dual role, and it has been included by the Future Homemakers of America as part of its program of work. A resource unit on the topic prepared by one university was made available to all home economics teachers in the State.

(iv) Includes consumer education programs. Consumer education programs are growing at all levels of instruction. Secondary teachers include it as a separate course and as an integral phase of homemaking instruction. For example, 98 percent of the organized classes for adults include consumer education as an integral part of the instruction. Consumer education is an integral part of postsecondary programs in vocational schools and community colleges.

(v) Are designed for persons who have entered or are preparing to enter the work of the home. Programs designed for those who have entered, or are preparing to enter, the work of the home have been piloted in vocational schools and community colleges. Expansion of these programs in vocational schools is being planned for fiscal year 1974.

Table 18 indicates the growth in enrollments in consumer and homemaking programs from fiscal year 1963 through 1972 and the projected enrollments for fiscal year 1977.

According to the Vocational Education Amendments of 1968 and the Kentucky State plan, funds will be expended for ancillary services to assure quality in all homemaking education programs, such as, but not limited to, teacher education and supervision; curriculum development; research; program evaluation; special demonstrations and experimental programs; development of instructional materials; provisions for equipment; and state administration and leadership.

Since the passage of the Vocational Education Amendments of 1968, Kentucky has conducted a number of activities to ensure quality in consumer and homemaking education programs. A curriculum guide for comprehensive consumer and homemaking education for grades 7–12 has been developed, field tested, and revised. Curriculum materials for special interest semester courses have been developed and revised. Teacher education programs have been strengthened through inservice workshops for supervising teachers and student teachers.

The focus of supervisory activities has been the development of consumer and homemaking activities that emphasize consumer education, preparation for the dual role of homemaker and wage earner, and programs that reach more disadvantaged youth and adults.

Successful experimental programs for postsecondary students and adults have become a regular part of the consumer and homemaking program.

One-third of the Federal funds continues to be expended in economically depressed areas. In fiscal year 1972, 170 programs served youth in the economically depressed counties. Programs serving adults were 277 with an enrollment of 3,707.

TABLE 18.—ENROLLMENTS IN CONSUMER, HOMEMAKING, AND OCCUPATIONAL HOME ECONOMICS BY DESIGNATED FISCAL YEARS

Program areas by fiscal years	Enrollments by program level			
	Secondary	Post-secondary	Adult	Tota
1963: Vocational home economics	29,672	0	5,233	34,905
1968: Home economics useful employment (homemaking)	35,335	0	7,226	42,561
Home economics gainful employment	89	0	475	564
1972:				
Part F—Consumer and homemaking:				
(a) Disadvantaged	11,150	333	4,122	15,605
(b) Handicapped	1,782	7	111	1,900
(c) Total [1]	38,075	984	12,072	51,131
Part B—Occupational home economics:				
(a) Disadvantaged	70	23	84	177
(b) Handicapped	3	7	7	17
(c) Total [1]	593	89	1,415	2,097
1977 (projected):				
Part F—Consumer and homemaking:				
(a) Disadvantaged	15,000	500	5,675	21,175
(b) Handicapped	2,200	25	500	2,725
(c) Total [1]	44,000	1,500	17,000	62,500
Part B—Occupational home economics:				
(a) Disadvantaged	200	700	600	1,500
(b) Handicapped	35	30	90	155
(c) Total [1]	700	2,000	1,800	4,500

[1] Totals include enrollments in regular programs.

d. Cooperative Vocational Education

Cooperative vocational education is a pattern of instruction which combines formal education with meaningful on-the-job work experience that enables students to acquire knowledge, appropriate attitudes, and skills required for employment. This program is supported by provisions of the Vocational Education Amendments of 1968 under "part G" and "part B."

Section 175 in "part G" of the act explains this program in the following terms:

> Cooperative work-study program means a program of vocational education for persons who, through a cooperative arrangement between the school and employers, receive instruction, including required academic courses and related vocational instruction by alternation of study in school with a job in any occupational field, but these two experiences must be planned and supervised by the school and employers so that each contributes to the student's education and to his employability.

The on-the-job work experience periods and the instruction received at school may be scheduled on alternate half days, full days, weeks, or other periods of time which will assure appropriate relationship and reinforcement of the two phases of the educational experience. The pattern of instruction needs to be carefully planned so that the objectives of the cooperative work-study program will be fulfilled. Policies and procedures of the Kentucky State plan for the administration of vocational education give assurances that:

(1) "Part G" funds will be used only for developing and operating cooperative work-study programs which provide training opportunities that may not otherwise be available and which are designed to serve persons who can benefit from such programs.

(2) Necessary procedures will be established for cooperation with employment agencies, labor groups, employers, and other community agencies in identifying suitable jobs for persons who enroll in cooperative work-study programs.

(3) Provision is made for reimbursement of added costs to employers for on-the-job training of the students provided such training is related to existing career opportunities and does not displace other workers.

(4) Ancillary services to assure quality of the instruction, such as preservice and inservice training for teacher coordinators, supervision, curriculum development, and program evaluation will be provided.

(5) Priority for funding such programs will be given to areas that have high rates of school dropouts and youth unemployment.

(6) Provision will be made for students in nonprofit private schools in the area served to participate in cooperative work-study programs to the extent consistent with the number of students enrolled in such schools.

(7) Program and student accounting, evaluation, and followup procedures will be provided so as to ascertain the results of all phases of the instructional program and what needs to be done to improve it.

In fiscal year 1963, cooperative work-study programs in Kentucky were confined to the occupational field of distribution and marketing. This program area had an enrollment of 754 students. However, vocational agriculture was organized on a similar instructional basis even though the on-the-job experience was planned and largely implemented on the student's home farm under the supervision of the teacher of agriculture and the student's parents. This program area had an enrollment of 13,724 students.

In the 5-year period from 1963 to 1968, cooperative work-study programs, under part G, were expanded to include agriculture, business and office, and distribution and marketing. There were 2,541 students enrolled in the program from these three program areas. (This does not include the cooperative vocational education programs supported under part B of the Act.) During fiscal year 1972 there were 8,405 students enrolled in the program supported by part G. These students were enrolled in health occupations, home economics, and trade and industrial education as well as agriculture, business and office, and distribution and marketing education.

Projections for 1977 indicate that about 38,167 persons will be served through the cooperative work-study program. This represents a 354 percent increase in enrollment. It is believed that the future of this pattern of instruction looks exceedingly promising. As the leaders in education and the leaders in industry develop better communication linkages and learn to pool their resources in a common cause, cooperative vocational education is bound to grow and prosper as a viable entity in the total educational system.

Nationally, health occupations and home economics have shown the greatest growth in cooperative work-study programs in recent years. Should this developmental pattern follow the same trend in Kentucky, there could be a 500 to 600 percent increase in enrollments by 1977.

PROGRESS MADE IN KENTUCKY WITH COOPERATIVE VOCATIONAL EDUCATION

Identifying proper training stations for cooperative education students has never ~~been a problem~~ in program development. To help ensure quality training stations, part G funds were used to support a staff member in the department of personnel with the sole responsibility of communicating to all agencies of State government on how each could become involved with cooperative vocational education. Labor unions have not accepted the cooperative students in all areas of the State; but in some areas, we have a fine working relationship with the unions. In those areas where the cooperative coordinator is a card-carrying member of the local, we have a much better working relationship.

With the very limited funds for cooperative development, we have not encouraged employers to seek reimbursement for added employer costs. In our regular programs, we feel the student is sufficiently trained to produce at the minimum wage level. We are planning a program to serve handicapped students in a sheltered workshop type program with reimbursement to the employer being an incentive for cooperating.

One of the great benefits of cooperative training is that it helps the schools to more accurately determine the labor needs of the community. If the student cannot be placed in a training station appropriate to his career objectives, chances are the labor supply in that occupation is adequate.

A signed training agreement is on file for every student. This agreement, which is signed by the student, coordinator, employer, and sometimes parents, states that the student will not at any time replace a regular worker.

All teacher education institutions in Kentucky are involved in one or more areas of preservice training for teacher coordinators. Each year since 1970 we have funded two summer institutes for teacher coordinators. Part of the institute time was used to develop a handbook for all cooperative coordinators in Kentucky. A core curriculum for cooperative vocational education has been developed. An institute to develop learning packets for the core curriculum has been approved for fiscal year 1973.

Program planning is carried out by means of a cooperative task force in the Bureau of Vocational Education, State Department of Education. It is through this group that all recommendations for programs and activities originate. The coordinator of this task force is charged with planning, developing, and evaluating all cooperative programs. An evaluation instrument has been prepared so that all cooperative programs can be evaluated on a uniform basis.

We recognize the vital role that guidance counselors have in the operation of sound programs. In all inservice institutes, the important role of the counselor is stressed. Guidance counselors have always been a part of every inservice meeting we have conducted. A proposal is now being reviewed which is planned to conduct an inservice training program for administrators and supervisors of cooperative coordinators.

At the present time, we are working closely with three doctoral candidates at the University of Kentucky who are conducting research to determine the effectiveness of this method of instruction as opposed to regular institutional training.

A new approach to cooperative vocational education was piloted in four schools this past year. In this pilot effort, a team of academic teachers along with the teacher coordinator recruited into the program a group of students that have never indicated a need for vocational training. They were identified as students that, in all probability, would not continue their education beyond high school. After basic orientation as to the nature and purpose of cooperative vocational education, with the total team participating, the students were given an opportunity to become involved in the real world of work under the supervision of the teacher coordinator. These special programs were placed in areas with high rates of school dropouts and youth unemployment.

Students from nonprofit proviate schools that enter the vocational programs are given the same opportunity to participate in cooperative vocational education programs as any other students. A student is placed in a training station when he is judged to be ready and can benefit from such training. This is a great motivating factor within our schools.

Every teacher coordinator is required to prepare an annual report indicating what has happened to each student that participated in the cooperative program. This information is used for guidance purposes and improvement of the overall cooperative vocational education program in the State.

Table 19 shows the growth pattern of cooperative work-study programs in Kentucky during the decade since the Vocational Education Act of 1963 was enacted.

ENROLLMENT IN COOPERATIVE VOCATIONAL EDUCATION PROGRAMS IN KENTUCKY BY DESIGNATED FISCAL YEARS

Fiscal year	Vocational education program areas						Total enrollment	Percent increase
	Agriculture	Business and office	Distributive education	Health occupation	Home economics	Trade and industry		
1963	0	0	754	0	0	0	754	
1968	725	596	1,220	0	0	0	2,541	205
1972 "Part G"	375	504	378	21	20	595	1,893	230
1972 "Part B"	(983)	(528)	(5,001)				(6,512)	
1977 (projected)	3,100	1,527	32,500	30	60	950	38,167	354
Total	5,183	3,155	39,853	51	80	1,545	49,867	

e. Work-study Programs

Part II of the Vocational Education Amendments of 1968 makes provisions for work-study programs for vocational education students who are at least 15 years of age and less than 21 years of age at the commencement of their employment. The purpose of a work-study program is to provide employment through a local educational agency or some other public agency or institution for students who are in need of the earnings from such employment to commence or continue their vocational education programs.

The program shall be administered by the local educational agency and made reasonably available to all youths in the area served by the agency to the extent that funds are available. Employment shall be made available only to a student who has been accepted for enrollment as a full-time student in a vocational education program that provides reasonable expectations for employment when the student completes it. Students already enrolled in a vocational education program are eligible for support if they are in good standing and in full-time attendance.

Any student approved for work study shall be judged as being capable, in the opinion of the appropriate school authorities, of maintaining good standing in his vocational education programs while employed under the work-study program.

Work-study programs in vocational education were first begun in Kentucky in fiscal year 1965. As indicated in table 20, there were 859 enrolled in the program. The total budget in 1965 was $207,615. In fiscal year 1972, the enrollment had increased to 1,001 students; but the budget was decreased to $125,320. More students were served with less financial support. The average earnings per student in 1972 was only $125 as compared to $240 per student in 1968. This program is in continuing demand each year by well qualified students who are far in excess of available funds to support them. The annual allocation should be significantly increased to provide financial support to many needy students who want to enroll in vocational education programs in the State vocational-technical schools, are vocational education centers, and public secondary schools.

During the period that this program has been in operation, the financial support has enabled hundreds of needy youth to enter and complete vocational education programs and then find gainful employment. Kentucky has been most fortunate in receiving limited work-study funds; however, the present status of this program is totally inadequate to meet the increasing demands from well qualified young men and women throughout the State. Hardly a day passes that we do not receive inquiries from different sections of the State seeking additional financial support for work-study programs.

The employment opportunities for unskilled youth looks bleak according to reports from social agencies who are charged with the responsibility of providing social services to the needy. They see the financial support from work-study programs in vocational education as a golden opportunity to better serve many deserving youth in the State and give them the opportunity to receive the kind of vocational training that will enable them to become gainfully employed above the unskilled level.

The status of the work-study program in Kentucky for the fiscal years of 1963, 1968, and 1972, and the projected need for 1977, if funds are available, is shown in table 20.

TABLE 20.—WORK-STUDY PROGRAMS SUPPORTED BY FUNDS APPROPRIATED UNDER PART H OF THE VOCATIONAL EDUCATIONAL AMENDMENTS OF 1968 IN KENTUCKY FOR CERTAIN DESIGNATED FISCAL YEARS

Fiscal year	Student enrollments	Financial support		
		Federal—"part H"	State	Total
1963	0	0	0	
1968	859	$71, 312	$17, 828	$89, 140
1972	1, 001	124, 440	31, 336	155, 770
1977[1]	5, 000	500, 000	125, 000	625, 0006
Total	6, 860	695, 752	174, 164	869, 916

[1] Projected.

f. Research and Training

The Vocational Education Act of 1963 provided funds in part C of the act for the establishment and operation of State research coordination units; for making grants to any college, university, local educational agency, or other public or nonprofit private agency or institution; and for entering into contracts with any private agency, organization, or institution for these purposes:

(1) Vocational education research and personnel training programs.

(2) Developmental, experimental, or pilot programs designed to meet the special vocational education needs of youth, particularly disadvantaged youths in economically depressed communities.

(3) The dissemination of information derived from research and demonstration programs and projects in the field of vocational education; such as, those reported in the Educational Resources Information Center (ERIC) and other related agencies.

The act provided for the establishment of the Kentucky Research Coordinating Unit in Vocational Education. The State plan for the administration of vocational education in Kentucky describes the name of the unit, its staff, organization, and functions with respect to vocational education research and personnel training programs; developmental, experimental, or pilot programs; and dissemination activities.

The central problem that prompted the leadership in Kentucky to organize the Kentucky Research Coordinating Unit in Vocational Education was the status of occupational research and personnel training programs in the State, the urgency for greater emphasis on research as a basis for giving proper direction to more effective program planning, and the limited capability to utilize the research resources and findings in program implementation.

An expression of need for greater involvement in occupational research and related activities pertaining to vocational education came from several sources. The report of the panel of consultants on vocational education in 1962 issued a strong indictment against the leadership in vocational education for inadequate attention to research as a tool for decisionmaking and recommended greater Federal support for research and related activities to assure improved quality in vocational education. The panel of consultants said there was too little evidence of research capability because "few people have been trained as researchers in vocational education, most vocational educators are pragmatists, interested primarily in the immediate tasks they are responsible to carry out rather than in research." It is recommended that the importance of research in vocational education must be recognized more widely and steps must be taken to develop research, training of personnel, and to develop activities commensurate with the needs.

Research and personnel training programs are needed in all parts and at all levels of vocational education. If occupational education is to come of age, research must permeate all aspects of long-range and annual planning, program organization, administration, operation, and evaluation. The relevance, effectiveness, and improvement of educational programs and services to assure appropriate career education opportunities and vocational preparation ultimately rests on sound programs of research, training, and development and their proper employment within the statewide system of education. Our educational system must be capable of meeting the challenge imposed on it by social and economic change which has been compounded by a vast explosion of knowledge. This challenge can be met only by effecting necessary innovations in the total educational system. These innovations must be based on the results of sound research. We must have the information that will enable us to produce a new and responsive learning environment; develop new curriculums; develop more competent administrators, teacher educators, teachers, and researchers to guide and continue the process of improvement; and make the results of research and development readily available to the people who need them through an effective program of information dissemination.

It has been emphasized that the expanding need for research activity and results calls for a sound national program of research involving Federal, State, and local participation. The Congress has reflected its concern about the meager attention given to research pertaining to educational problems and its readiness to support a more aggressive program of research designed to assure quality in all instructional programs. This is evidenced by the provisions made for research and related activities in significant educational legislation passed in recent years. The unsolved problem to date resides in the discrepancies that exist between authorizations for research in the federal acts and the actual appropriations and delivery systems effected to get the task accomplished. There must be reasonable stability on a given course of action for programs to be developed, for competent personnel to be trained, and the system to be implemented if favorable results can be expected.

The conceptualization and implementation of State research coordination units came about as a part of this national plan. They constitute a vital link in the total research process if they can be properly organized, staffed, implemented, and financially supported. The Vocational Education Act of 1963 authorized support for research and development in vocational education in two important ways. Research is recognized as one of the essential ancillary services needed to support state programs of vocational education. Provisions are made for its support, on a continuing basis, in part B and are approved in State plans for the administration of vocational education for that purpose. Provisions ~~are~~ also made for its support under part C. This section indicates the kinds of research and related activities that can be supported by Federal funds administered by the Commissioner of Education—research and training programs; and experimental, or pilot programs.

The Kentucky State plan has established a broad base for the development of a research program which can take advantage of all possible means of Federal, State, and local support, coordination, and cooperation. The rationale used in structuring the Kentucky Research Coordinating Unit was the belief that the immediate need should be program-oriented research based on a sound philosophy of vocational education and guided by clearly defined programs and objectives. Several strategies for educational change were carefully studied in an endeavor to arrive at an acceptable definition of research and development which would embrace the fundamental principles inherent in the process of educational change. Conclusions from these studies provided the background of understanding which contributed to the concept accepted in Kentucky and has served as the basic framework for the program that has been developed.

Kentucky was given the opportunity to establish a research coordinating unit for vocational education in 1965. It was approved on June 1, 1965. The project was supported by Federal and State funds. The purpose of the Kentucky Research Coordinating Unit was to provide the leadership, motivation, and coordination needed to create and foster a favorable climate for occupational research and development in vocational education. It was given the responsibility to build and maintain a continuing program of research and related activities which would help assure relevance and quality in all programs of vocational education. In the beginning, it became apparent that the State was inadequately supplied with research personnel to take full advantage of existing support. There was an urgency to identify, motivate, and develop the research talent needed in the State and to improve the research capability of the entire professional personnel in vocational education so they could more effectively participate in research and related activities.

The Kentucky Research Coordinating Unit occupies a strategic position pertaining to occupational education. It has a unique opportunity to enhance and strengthen Federal, State, and local cooperation, coordination, and involvement in research and related activities which are beneficial to the total State program of vocational education in its endeavors to expand and improve its programs, services, and activities for the benefit of the people to be served.

The significant purposes for which the unit was organized are to:

(1) Establish research and related activities as an integral part of all aspects of the State program of vocational education.

(2) Provide effective leadership, which will maintain emphasis on the kinds of research and development programs needed in the State.

(3) Facilitate and coordinate occupational research activities so as to maximize the acquisition and use of information needed to develop a well-rounded program of vocational education.

(4) Stimulate programs and projects which will result in increased interest, improved competence, and greater involvement in research and related activities.

(5) Conduct some research pertaining to program assessments of employment opportunities, human resources, educational resources, and follow-up of students.

(6) Support the development and operation of a continuing system of State program evaluation in all areas of vocational education.

(7) Develop an effective and continuing program of occupational information services to support program planning, evaluation, and accountability.

(8) Identify basic issues and problems relating to the place of vocational education in the State school system and determine the contributions which research and related activities can make in resolving them.

The Kentucky research coordinating unit for vocational education was initially centered in the College of Education at the University of Kentucky. On July 1, 1972, it was moved to the bureau of vocational education in the State department of education. This move was made so as to make the unit an integral part of the program supporting services division of the bureau and to make it more responsive to the administrative and leadership responsibilities of the bureau in such areas as program development, program planning, and occupational information retrieval and utilization. In the bureau of vocational education, the unit has been renamed, "the educational resources development unit."

Since the research coordinating unit was established in 1965, it has provided significant leadership in carrying out its intended purposes. Some of the significant activities and projects that were sponsored are:

(1) Employment of a research coordinating unit staff—a professional staff or six persons; four research assistants employed half-time; six graduate assistants employed half-time; and six secretaries employed full-time.

(2) Organization of a research advisory council composed of leading researchers, teacher educators, administrators, and teachers who were knowledgeable about research and issues and problems pertaining to vocational education and manpower development.

(3) Organization of task forces in the bureau of vocational education which included representatives from all program areas to counsel, advise, and coordinate their activities with the research coordinating unit.

(4) Employed six special consultants to work with the research coordinating unit, research advisory council, and research task forces to help develop an understanding of research and development and identify the needs for research and related activities in vocational education.

(5) Conducted a series of statewide meetings for all professional personnel in vocational education to:

(a) Explain the Kentucky State plan for vocational education.

(b Explain the objectives of the research coordinating unit and make clear why vocational personnel should participate in its activities.

(c) Assess the concerns of the people regarding problems in vocational education which would indicate the need for research and training programs.

(6) Involved the State leadership in a series of meetings designed to develop concepts, understandings, and plans for program development in all areas of vocational education based on research activities and results. A concerted effort was made to focus attention on the "changing world of work."

In January, 1966, these meetings were initiated by a 3-day workshop with W. Willard Wirtz, Secretary of Labor; Walter M. Arnold, Assistant Commissioner of Vocational and Technical Education, U.S. Office of Education; Stanley H. Rottenberg, Manpower Administrator, U.S. Department of Labor; and George Wallace, Director of Vocational and Technical Education for the U.S. Office of Education in Region III, as speakers and participants.

(7) In the summers of 1966 and 1967, emphasis was placed on research training institutes. Personnel in all vocational education services and all levels of responsibility were enrolled. Three institutes were conducted.

(a) Research training institute for professional personnel in vocational education. This was an 8-week institute, financed with Federal funds, for 30 persons selected from teachers, coordinators, supervisors, and teacher educators throughout the State. The purpose of this institute was to develop research concepts and competencies.

(b) A seminar for supervisors and teacher educators of teachers of persons with special needs. This was a 2-week seminar for 40 participants from the Eastern sector of the United States.

(c) A clinical workshop in mental health and psychiatric nursing for instructors in schools of practical nursing. This was a 2-week workshop for 30 registered nurses; 20 participants were selected from Kentucky. 10 other participants were selected from region III.

The Kentucky Research Coordinating Unit has been involved in many research programs, projects, and activities. It has initiated and conducted many in-house projects. These endeavors have resulted in the acquisition, collection, organization, and dissemination of important knowledge needed to promote occupational research and occupational education in the State. Continuing efforts to strengthen and expand research and related activities as an ancillary service to the State program of vocational education is necessary if the progress made to date will lead to lasting results. Examples of five types of studies that have been completed follow:

1. *Career education project—Owensboro region*

Ten county and/or independent school districts, the Henderson Community College, and the Daviess County State Vocational-Technical School are participating in a regional organization system to plan, implement, and evaluate a comprehensive career education program in their educational systems. A regional staff of three career education specialists are assisting local education agency personnel in implementing career education concepts. During 1972–73, over 31,813 students; 1,120 teachers; and 91 supervisors and administrators were involved in the project.

2. *The Hulette study*

Business and office education, utilizing research funds, conducted a comparative study of four methods of teaching office practice classes. Methods included: (1) cooperative, (2) directed learning, (3) simulated, and (4) traditional 1-hour sessions. The study resulted in conclusions which revised the instruction at Franklin County High School and has been used in other schools in the State. Of particular benefit was the use of simulation where adequate numbers of work stations were not available in industry to provide experience. Simulation is being used more extensively in business and office education each year in the State.

3. *The Booz, Allen, and Hamilton study*

The overall administration of vocational education was studied in early 1973. A consulting firm outside Kentucky reviewed all facets of the administration and operation of the Bureau of Vocational Education in the State. A series of recommendations has been made. The recommendations point to needed improvements in operations from the State level to the local level. Some of the recommendations have been implemented, and others will require additional time and study to determine the most adequate implementation procedures.

4. *The Lemons study*

Competencies needed by trades and industry teachers were analyzed during a 2-year period. A task analysis approach was used to determine the competencies needed by teachers in five different program areas in trades and industry courses. A list of approximately 60 skills common to the 5 subject matter areas was found. Additionally, the specific competencies needed for the speciality teaching area were determined. The results of the study point up the types of course work which should be included in the college program for preservice and inservice education needs of teachers in those trades and industry program areas studied.

5. *The Spillman study*

In a recent study of the image of vocational education in Kentucky, responses of high school principals, superintendents, guidance counselors, vocational teachers, nonvocational teachers, students—vocational and nonvocational—and parents were inventoried and analyzed. The results indicated that from 1967 to 1972, the status of vocational education in the State had increased significantly. The overall indication was that vocational education, as seen by the various groups, has experienced a positive change.

TABLE 21.—SUPPORT OF RESEARCH AND RELATED ACTIVITIES IN KENTUCKY FOR THE RESEARCH COORDINATING UNIT IN VOCATIONAL EDUCATION, GRANTS, AND CONTRACTS FOR DESIGNATED FISCAL YEARS

	Use of funds			
Source of funds	Research coordinating unit	Research grants	Research contracts	Total
Fiscal year 1965:[1]				
Federal	$66,754	$33,375	$16,700	$116,829
State	38,000	19,000	16,700	73,700
Total	104,754	52,375	33,400	190,529
Fiscal year 1968:				
Federal	100,000	49,325	0	149,325
State	20,000	87,000	0	107,000
Total	120,000	136,325	0	256,325
Fiscal year 1972:				
Federal	107,117	178,740	10,826	296,683
State	35,073	323,250	10,826	369,149
Total	142,190	501,990	21,652	665,832
Fiscal year 1977:				
Federal	320,000	300,000	105,000	725,000
State	80,000	50,000	20,000	150,000
Total	400,000	350,000	125,000	875,000

[1] Fiscal year in which Federal support began.

g. Vocational Education Leadership and Professional Development—"Part F"

The Vocational Education Act of 1963, title II, part F, has provided the State of Kentucky an opportunity to initiate and implement professional development programs to meet the educational needs of all vocational personnel—such as administrators, supervisors, coordinators, teacher educators, researchers, and instructors. Funds, made available for vocational education professional development of the vocational education personnel in Kentucky, are shown in table 22. The State Department of Education, Bureau of Vocational Education, first applied for education professions development funds in fiscal year 1970. Kentucky has had an ongoing program funded each year, by the U.S. Office of Education, since that date. The Federal funds have been supplemented with State and local funds.

The quality of vocational education throughout the State has been strengthened and improved through a variety of experiences which the Federal vocational education act supported. Examples of such activities are: Inservice teacher education programs, short-term institutes for vocational education personnel, and leadership, and leadership development programs.

TABLE 22.—FUNDS RECEIVED BY KENTUCKY FOR LEADERSHIP AND PROFESSIONAL DEVELOPMENT IN VOCATIONAL EDUCATION AND PERSONNEL SERVED FROM FISCAL YEAR 1970 THROUGH 1973 AND PROJECTED NEEDS THROUGH FISCAL YEAR 1977

Fiscal year	Source of funds			Vocational education personnel served		
	Total	Federal	State	Section 552	Section 553	Section 554
1970	$167,769	$167,769	0	0	0	0
1971	189,375	151,500	$37,875	2	268	0
1972	306,200	215,400	90,800	14	449	0
1973	349,450	251,400	98,050	14	2,200	0
1974	285,000	212,700	72,300	22	3,000	224
1977 [1]	610,767	474,134	136,633	22	3,800	448
Total	1,908,561	1,472,903	435,658	[2] 74	9,717	672

[1] Projected.
[2] Represent 56 different individuals.

The State of Kentucky received several grants to carry out specific vocational education leadership and professional development projects at the request of the U.S. Office of Education. Presently, the State has been assured of a grant for fiscal year 1974 to finance a national conference on "Implications for Minorities in Vocational Education", which is to be sponsored by the U.S. Office of Education. Kentucky will have vocational education personnel participating in this conference.

It is estimated that projections of the State's enrollment in vocational education personnel development programs through fiscal year 1977, will be increased by 755 vocational personnel enrolled in inservice activities. Based on a total of $223,900 needed to serve 3,088 individuals in 1974 and a projected increase of 755 individuals to be served by 1977 (a total of 3,843), it is projected that by 1977 a minimum of $297,434 education professions development funds will be required to support the programs needed to serve these people.

The vocational personnel served in fiscal years 1970 through 1973 do not pertain to two developmental projects operated by two universities to evolve a model comprehensive vocational education leadership and professional development program in a university setting. The two projects are being conducted by the University of Kentucky and Western Kentucky University. These two projects were not designed to serve vocational personnel specifically. The intended purpose was to revamp vocational teacher education programs in institutions of higher education where vocational teacher education programs are being supported for statewide vocational personnel development.

The University of Kentucky is one of 18 universities nationwide selected to provide graduate level vocational education leadership development under the provisions of section 552 of the Vocational Education Act of 1963, title II, part F. The U.S. Office of Education may nominate eight awardees from various States, including Kentucky, to be enrolled in this program as federally supported awardees. The State is permitted to nominate six individual awardees from Kentucky to be trained in this program. They are supported by Kentucky vocational education part B Federal funds and State funds.

During fiscal year 1970, the Vocational Education Act of 1963, made possible nine workshops or institutes which have led to further vocational personnel development.

Two institutes were conducted to improve instruction of the disadvantaged. Kentucky State College focused on programs for the disadvantaged in urban areas while Morehead State University emphasized programs for the disadvantaged in rural areas. There were 42 participants in attendance at these two institutes.

There were 50 participants that took part in two workshops to prepare vocational education personnel to work effectively with handicapped students. They were Eastern Kentucky University and Western Kentucky University.

Two universities conducted institutes for the development of administrative leadership in vocational education. They were the University of Kentucky and Murray State University. There were 49 vocational education administrators that participated in these two institutes.

Then 35 vocational personnel participated in an institute for the development of a model program for rural leadership. The institute was at Western Kentucky University. It was designed to provide for participation in the development of rural leadership components for State vocational education planning.

An institute on leadership development and State program planning was organized and conducted for 50 participants, including members of the bureau of vocational education and professional personnel in vocational education regions of Kentucky. The institute was conducted by the University of Kentucky. It was oriented to the systems approach to long-range and annual planning at the State, regional, and local levels.

One workshop was conducted to prepare leadership personnel in vocational education for curriculum development. There were 42 participants in attendance.

In fiscal year 1971, there were 150 teachers and administrators who participated in a personnel development program which was conducted in the Somerset vocational education region. This regionwide program was planned for the purpose of helping the vocational education personnel develop competencies in individualizing instruction and in developing curriculum materials for open-entry, open-exit instruction. The project has been continued for a 2d year in order to increase the rate and level of implementation and reinforce newly acquired skills.

In fiscal year 1972, another workshop was conducted in the Paintsville vocational education region which consisted of a series of meetings at the Mayo State Vocational-Technical School. They extended from October, 1971, through June, 1972. The purpose of these meetings was to increase the instructional effectiveness when teaching the disadvantaged.

Education Professions Development funds were also used to provide personnel development activities in the Owensboro vocational education region. The emphasis of these activities was to prepare personnel to develop and conduct career education projects. Approximately 219 people participated.

Murray State University conducted a workshop for 28 participants for the purpose of developing a better understanding of the needs of disadvantaged and handicapped students.

During fiscal year 1973, the State Board of Education, through the vocational staff in the Bureau of Vocational Education, State Department of Education, and the institutions of higher education in the State, provided workshops and conferences for all vocational education personnel in the state. Five workshops, enrolling about 200 persons, were conducted by the institutions of higher education. Three workshops were held for people working with the disadvantaged; three workshops were conducted for people working with the handicapped; five workshops were held for the State staff; and one year-long regional inservice project was conducted. A total of more than 2,000 people participated in these activities.

The main thrust of the professional development programs under the 1963 State plan was to organize training programs for vocational education personnel across occupational service lines. Task forces have been established in the bureau of vocational education by functions to provide leadership for these training programs. These functions were identified to include the major areas of vocational education. They included administration and leadership; teacher education and supervision; research and special projects; curriculum development and preparation of instructional materials; exemplary programs and projects; cooperative vocational education and work study; program evaluation; vocational guidance services; programs at the prevocational, secondary, postsecondary, and adult levels; programs for disadvantaged and handicapped students; manpower remedial education; youth organizations; and facilities construction and maintenance.

In addition to the work of the task forces, each occupational area was organized into a division with a primary responsibility for program development. Personnel in the different vocational divisions also served on the various task forces. Decisions made by the task forces regarding the different functions are implemented by the different vocational divisions when they carry out their responsibilities regarding program development. In this regard, each vocational division has the responsibility to develop a plan for the professional development of the vocational personnel in the occupational area to which it relates. This responsibility was intended to prepare the professional personnel so they would be able to perform satisfactorily. By giving particular attention to the major functions and then how they apply to the different occupational areas, a more viable State plan for professional development has been developed.

During the years that we have attempted to organize and carry out a sound program of vocational education leadership and professional development, needs have been identified and new priorities have been established.

Continued emphasis needs to be given to the development and operation of a comprehensive system of vocational teacher education which will include both preservice and inservice programs. The system must continue to provide experiences which will lead to the development of:

(1) Administrative leadership at the State, regional, and local levels.

(2) Competencies needed when working with disadvantaged and handicapped students.

(3) Competencies needed in longrange and annual planning of comprehensive programs in vocational education at the State, regional, and local levels.

In projecting the needs of Education Professions Development through 1977, it is believed that emphasis should be placed on planning for personnel development at the regional and local levels. The regional director of vocational education and his staff need to be involved to a greater extent in ascertaining the requirements for personnel development and in the development of personnel development programs based on the deficiencies which have been identified. Personnel development activities need to become more of an integral part of the total program of vocational education in each region. The development of this approach is a high priority for the period through 1977.

The stimulus, direction, and financial support given to the professional development of vocational personnel through provisions of the Vocational Education Amendments of 1968 are producing good results. This program is vital in helping vocational education personnel reorient themselves to changing professional needs in vocational education. It is anticipated that they will continually need to be updated, refreshed, or retrained for the operation of new programs, services, and activities which they will be asked to carry out to meet the changing needs of the people.

Because of the relatively short experience obtained in the operation of Vocational Education Act of 1963, title II, Part F, programs, it is difficult to accurately assess their impact. If workshops, seminars, institutes, conferences, and program planning and development are necessary for professional personnel development (and I believe they are), then Part F programs have been very effective since none of the activities sponsored by Part F funds could have taken place. Short-range evaluations such as trainee questionnaire responses, reports of evaluation teams, and subjective administrators' reports all strongly support the value of these programs.

h. Disadvantaged (Part A-102(b)

With the appropriation of the Vocational Education Amendments of 1968, vocational education in Kentucky was reinforced and its direction altered. Programs, services, and activities were provided from part a 102(b) for 344 secondary students, 1,139 postsecondary students, and 178 adults in vocational education. Local educational agencies providing programs, services, and activities included local school districts, State vocational-technical schools, area vocational education centers, community colleges, and 4-year colleges and universities with associate degree programs.

Learning laboratories in the State vocational-technical schools are providing remedial and related instruction for students enrolled in regular programs of vocational education. Modified classes within various program areas are being conducted for youth in areas of high unemployment.

Twelve of the fourteen community colleges in the University of Kentucky Community College System continued serving the disadvantaged with vocational (career-oriented) programs.

These programs were helpful in promoting closer working relations between the community colleges and State vocational-technical schools.

Coordination and cooperation with other agencies have been vital parts in developing programs for disadvantaged using part A 102(b) funds. the bureau of vocational education is cooperating with the department of corrections and offering vocational programs at penal institutions for both male and female. In addition to the department of corrections, there are cooperative agreements with the department of child welfare and vocational programs serving youth at Lynwood Girls' Center, Kentucky Reception Center, and the Day Treatment Center of the Fayette County Children's Bureau.

Other projects involving part A 102(b) funds to serve disadvantaged include:

(1) A tutorial resource center in a local school district to supplement the regular vocational program in the school.

(2) A mobile evaluation unit in an urban area. The unit is used to diagnose and assess students thus assisting in placement.

(3) A program of vocational guidance and supportive services for students being served by the Lexington Urban League.

i. Curriculum Development

The curriculum development center was established in July, 1966, with a staff of eight, encompassing the areas of agriculture, business and office, distribution and marketing, health occupations, home economics, and trade and industrial education. At that time, and through 1968, the primary purpose of the center was to develop instructional materials for the vocational teachers throughout the commonwealth. The center was and continues to be housed at the University of Kentucky through a cooperative contract with the university and the bureau of vocational education.

In 1969–70, a special project was implemented to conduct competency tests for instructors in the trades and industry areas of vocational education. This was considered critical as many of the trades and industry instructors come to the teaching profession after several years experience in industry but with limited college or university backgrounds. This has made it necessary to develop a standard form of evaluation and competency determination. During 1972, a total of 66 instructors took these tests; and 22 workshops, relating to this topic, were conducted.

In 1971–72, a greater emphasis was placed on the utilization of teachers and teacher educators in curriculum development. It was believed that selected outstanding teachers were in a rather unique position to contribute to the development of curriculum materials and this resource should be tapped. During 1971–72, the center produced a total of 49 teaching units and guides, 48 teaching-learning kits, 7 resource lists, 42 learning activity packets, 3 sets of slides (172), 946 transparencies, and other supporting materials.

In July 1972, a supplementary U.S. Office of Education grant of $180,000 was received by the center for a special project. This project called for the development of 10 teacher guides in cluster areas of career education to be used in the exploratory phase, grades 7–9, of career education. These guides are currently near completion. Inservice workshops were held during the summer of 1973 to assist the teachers in the utilization of these guides. During the fall of 1973, these guides will be field tested in 50 schools throughout Kentucky. "Part C" research funds will be utilized for the research component of this project. After these guides have been field tested, revised, and printed, they will be made available to any teacher in Kentucky or the Nation. As the career-exploration phase has been one of the most difficult phases of career education, we believe these guides will make significant contributions to the educational system.

Another significant contribution of the curriculum development center in 1972 was the development of a resource library for teachers of programs for disadvantaged and handicapped students. The library was developed into a kit form which gives individual teachers the opportunity to take it to their individual schools for greater in-depth study of the materials. During the 1972–73 school year, the library was used by 110 teachers of programs for the disadvantaged and handicapped.

A nationwide curriculum development network is being formed. Kentucky's curriculum development center relates to Ohio, Tennessee, Virginia, West Virginia, and the District of Columbia, while six other centers relate to their surrounding States. It is anticipated that this system will bring about a significant savings in money and manpower by reducing the duplicative effort commonly found among various States' curriculum development efforts.

As the curriculum development center plans for the future, it is anticipated that major thrusts will be made toward the development of curriculum materials suitable for individualized instruction in open-entry, open-exit programs. These materials must be criterion referenced and validated through the participation of representatives of business and industry. The center must maintain close liaison with the occupational information unit of the bureau of vocational education in order to direct their efforts toward the development of instructional materials which match the critical occupations identified by the manpower study of that Unit.

We also anticipate that additional efforts must be exerted toward the development of inservice instructional materials for the updating and retraining of the adult population of the society. Today's rapidly changing technology has made it necessary for vocational education to be a continual program from pre-entry training to retirement. We believe Federal funds have and should continue to play a significant role in making these educational materials available to the students and teachers in Kentucky.

As in the past, the curriculum development center will continue to rely upon its statewide advisory committee and task force in the bureau of vocational education to assist it in establishing priorities as areas of endeavor. The Federal vocational education acts and the Kentucky State plan for the administration of vocational education will continue to serve as the guides for administration of activities pertaining to curriculum development.

STATE ADVISORY COUNCIL

The Kentucky State Advisory Council on Vocational Education was authorized by the Vocational Education Act of 1963 (Public Law 88–210). The council was appointed by the Governor and approved by the U.S. Commissioner of Education on November 13, 1964. It has been composed of 21 members appointed on a staggered 3-year basis, and the requirements for appointment follow the requirements indicated in the Vocational Education Act of 1963, as amended in 1968.

The council has been very active in carrying out its assigned responsibilities throughout its tenure and has held meetings on a regular basis. To the extent possible, the meetings have been held prior to the meetings of the State board of education so as to have a maximum input of advice, counsel, and recommendations to the board and to the State department of education with regard to matters concerning vocational and technical education.

To develop a statewide awareness of the programs of vocational education, the needs of vocational education, and opportunities for occupational training through the vocational-technical programs offered in Kentucky, the council has undertaken several approaches. It has cooperated with the State chamber of commerce, local chambers of commerce, regional advisory councils on vocational education, and other interested organizations in conducting public hearings and seminars on vocational education on the basis of the vocational education regions of the State. The plans have been to hold at least six such hearings and seminars each year. In the past 2 years, public hearings and seminars have been held in each vocational education region of the State. In these meetings, the following groups of people have been invited to participate: (1) representatives from the business and industry communities, (2) representatives from labor organizations, (3) representatives of trade and industrial organizations, (4) representatives of public schools including colleges and universities, (5) representatives from regional and local vocational education advisory committees, (6) representatives from government at all levels, and (7) the general public.

We feel that these meetings have been highly beneficial in enlightening the citizens of Kentucky to the opportunities for vocational-technical education; however, as time goes on, it is expected that the meetings will attract more people from different groups that should be involved in the development of a sound program of vocational education across the state.

The State advisory council has been working to expand its influence and effectiveness throughout the State by developing a working relationship with the 12 regional advisory councils on vocational education which have been appointed by the State board of education. It is believed that there is an opportunity in this relationship to greatly enhance the effectiveness of advisory councils in serving the interests and needs of the general public regarding vocational and technical education.

The State advisory council has developed a good communication with the national advisory council on vocational education and has received a great deal of valuable assistance through participating in meetings called by the national advisory council.

The State advisory council has developed an annual program of work designed to give special attention to the evaluation of selected aspects of the state program of vocational education each year. It is intended that approximately one-fifth of the State's program of vocational education as reflected in the State plan for the administration of vocational education and the CAMPS plan for manpower development and training will be evaluated each year in cooperation with the bureau of vocational education, State department of education, and other agencies that are interested in such an evaluation. This will enable the State advisory council to review the total State program of vocational-technical education at least each 5 years.

The State advisory council has developed a wholesome working relationship with the State board of education and has been receptive to continuing requests from the board to review certain issues and areas of concern that needed attention in making significant decisions pertaining to vocational education.

The State advisory council has been asked to counsel, advise, and recommend to the bureau of vocational education, State department of education, on the various State plans, program guidelines, program proposals, budgets, and ancillary services designed to improve curriculum development and instruction. These activities have been very beneficial in keeping the council abreast of the scope of activities engaged in by the State leadership in vocational education.

In summary, actions of the State advisory council in holding public hearings and seminars on vocational education throughout the State; in evaluating significant aspects of the State program of vocational education; in consulting with the State board of education; in holding quarterly and special meetings on vocational education; in working with the National Advisory Council; and through many other activities have helped bring to the attention of the general public an awareness of the importance of vocational education and its status in Kentucky. The council's main thrust, aside from its evaluation and consultative activities, has been to bring about a greater degree of business and industry involvement in vocational education planning and evaluation at the regional and local levels. This has helped to make vocational education programs, services, and activities more relevant to the needs of the State.

As a result of its work, some of the major recommendations made by the State advisory council to the State board of Education over the past 5 years, and the actions taken regarding these recommendations are as follows:

Recommendation No. 1.—We recommend that the State board of education appoint a representative group to study credits required for high school graduation and to study the curriculum in terms of making it broader and to include in the study the offering of high school credit through competency testing and appropriate work experiences.

Action to Implement.—The bureau of vocational education in Kentucky has tentatively agreed to work with a consortium of States to be administered by the the Southern Association of Colleges and Schools (SACS) for the purpose of developing catalogs of performance objectives and criterion referenced measures for a variety of vocational education programs. A State coordinator has been appointed and he represents Kentucky on the consortium board of directors as well as develops plans for the implementation of the program in the State. With the development of criterion-referenced measures, competency testing should be relatively simple to initiate.

Recommendation No. 2.—We recommend that the regulations adopted to manage and govern the administration of vocational education throughout the Commonwealth of Kentucky be consistent in their application and that variations in administrative policies be avoided in all cases concerning vocational education.

Action to Implement.—The bureau of vocational education is currently selecting an advisory committee of educators to review the existing administrative regulations and recommend overall changes to make the State board of education administrative regulations consistent. Consultants have been employed to collect all administrative policies, laws, and regulations and indicate deficiencies and discrepancies. An administrative policy handbook has been completed for use by administrative personnel in vocational education.

Recommendation No. 3.—We recommend that the State board of education approve the pattern of organization and management described in the advisory steering committee model for the Paducah region and further endorse that the plan become the general operational policy in other areas throughout the State; and that the steering committee be composed of a school superintendent, a member of the local board of education, a principal from the cooperating secondary school, and a lay citizen from each participating school district; and, that a member of the regional advisory council on vocational education serve on the committee to represent the region.

Action to Implement.— The State board of education approved the recommendation on March 21, 1973.

Recommendation No. 4

Whereas, the State board of education has approved the concept of ROPES for four regions of the State, and

Whereas, the State advisory council on vocational education believes that the regional concept will facilitate communication and administration of educational services in the Commonwealth of Kentucky. Now therefore, be it

Resolved, That we commend the State board of education for their approval of ROPES, and request them to use the benefits in the four ROPES districts in organizing future regional districts in the Commonwealth.

Action to Implement.—The State board of education was made aware of the commendation and agreed to expand to other districts as funds will permit.

Recommendation No. 5.—We recommend that the State board of education consider the application of Caldwell County for construction of a vocational center at its next meeting.

Action to Implement.—The State board of education approved the the EDA officials in Atlanta. Caldwell County project was given tentative approval for funds along with four other projects. The construction project is presently file in the Atlanta EDA office.

Recommendation No. 6.—We recommend that the council endorse and conducted a workshop involving regional advisory committees council and as presented by Dr. Carl Lamar, assistant superintendent for vocational education.

Action to Implement.—The State board of education approved the recommendation on March 21, 1973.

Recommendation No. 7.—We recommend that there be organized and conducted a workshop involving regional advisory committees and vocational education personnel aimed toward helping regional advisory committees better understand their roles and functions and the relationship of vocational education personnel to them.

Action to Implement.—Dr. Carl Hurley and Mr. Arnold Wilson of the professional development unit had a meeting with Billy Howard, executive director of the State advisory council, to discuss the possibility of holding inservice workshops to assist the vocational administrators to better utilize regional advisory committees.

It was decided that a set of guidelines should be developed for the purpose of better utilizing advisory committees. At present, a committee is being formed to develop the guidelines. The inservice workshops will be designed on the basis of the directives these people develop.

Recommendation No. 8.—The development of the comprehensive Kentucky Information for Training and Education System (KITES) needs to be given vigorous support in the coming months. The momentum toward realizing the original objectives must not be allowed to become sidetracked, and the involvement of other agencies concerned with human and economic resources development must remain an integral part of the system.

Action to Implement.—The Bureau of Vocational Education has indicated a continuing dedication to the development of the comprehensive data system through a commitment of funds and the individual support of Bureau personnel. Steps are being taken to acquaint people at the local level with the system and to involve representatives of all agencies of state government in the developmental phase. Agency involvement is being accomplished through two major approaches. *First*, involvement at the State level is being achieved through monthly meetings with the Kentucky Manpower Council, which has endorsed the system; and second, local level involvement of various agencies is being accomplished through the data collection procedures.

Recommendation No. 9.—Local business and industry leaders must have more input into the planning and evaluating of vocational programs at the local and regional levels. Local and regional vocational education administrators must lean heavily on the business and industry communities for guidance in the development and modification of instructional programs.

Action to Implement.—Through a series of continuous inservice education meetings with regional staffs, the Bureau of Vocational Education is promoting the idea that each program in each school should have an active craft advisory committee to assist in planning and evaluating vocational programs as well as to advise on the school curriculum content materials.

The SACS consortium project for performance objectives includes a model for validating the selecting of objectives within business and industry. This model is proposed to be patterned after the Air Force validation model and will require extensive involvement of business and industry.

Recommendation No. 10.—Attention needs to be given to more experimentation on the "module" concept in organizing instructional programs.

Action to Implement.—An EPDA project operating in region 14 will develop 15 vocational programs and print curriculum guidelines around instructional p. 438 modules developed in each occupational program area. The Bureau of Vocaticnal Education plans to utilize a staff in region 14 and the materials developed by them in workshops in other regions of the State to assist those institutions to initiate similar module programs. Again the SACS Consortium should speed up the process by making available performance objectives in a much broader group of vocational programs.

Recommendation No. 11.—Ways and means to get more use out of vocational facilities, especially in the summer months, needs to be given scrutiny during this year. This may necessitate experimenting with teachers' schedules, transportation of students, or even vacation time. We recommend that funds used for innovative purposes be used to remove the obstacles that can be identified in effective desirable changes.

Action to Implement.—Various regions in the State are individually trying new stategies during the summer months. Some examples include: (1) Conducting career exploratory classes for 9th and 10th graders; and (2) involving teachers in adult education programs.

Recommendation No. 12.—There needs to be more attention given to developing curricula based on competencies of students. In theory, the open entry-open exit plan of operation prevails in Kentucky. In practice, however, it is quite limited.

Action to Implement.—The SACS Consortium will provide performance objectives and criterion references measures which are essential before time requirements are eliminated from course outlines. In addition, the Somerset EDPA project will provide student competencies in 15 major programs and suboccupational units within each area. Distributive education has been involved 2 years with a consortium of 10 States to develop nearly 300 competencies in distribution and marketing. Until such time as specific objectives and measures of obtainment are devised, programs will, of necessity, be based upon clock hours, semesters, or teacher subjective evaluation.

Recommendation No. 13.—It is time to experiment with the traditional 3-hour block of instructional time for secondary students engaged in programs in vocational schools. We encourage experimentation in shortening the time to 2 hours in schools where travel would not be a negative factor. If successful, the change would allow 33⅓ percent more students to be served without any additional costs.

Action to Implement.—The Bureau of Vocational Education cooperating with the region 13 ROPES staff and the faculty and staff of the Laurel Area Vocational Education Center will experiment with the 2-hour block of instruction during 1973–74. The Marshall County Area Vocational Education Center will attempt a variety of offerings during the next 2 years, but this effort will be limited to distributive education.

SUMMARY AND RECOMMENDATIONS

During the period since the Vocational Education Act of 1963 was enacted by the Federal Government, vocational education programs, services and activities have grown at a phenomenal rate in Kentucky. This is evidenced when one examines the growth in terms of student enrollment, courses offered at the various instructional levels, new vocational facilities which have been constructed and renovated, increase of staff and teachers, and the significant increase of State and local appropriated funds to support vocational education.

Vocational education enrollment has increased from 79,124 in 1963 to 170,245 in 1972. Seventy-nine new vocational education facilities have been constructed and four existing facilities have been renovated. Additional applications have been received for 29 new facilities, but these have not been approved because of insufficeint funds. In fiscal year 1972, 35 different courses were offered at the secondary level, 123 at the postsecondary level, and 35 at the adult level. As shown in figure 6 on page 104, the Bureau of Vocational Education has been reorganized according to the functions provided for in the Vocational Education Act of 1963. This was done to bring about more effective and efficient administration and leadership in program development and program operations. That Bureau staff now totals 179 persons with 86 of them classified as professional. The number of vocational teachers throughout Kentucky presently exceeds 3,000; and vocational education programs are offered in seven universities and one 4-year college.

A significant achievement has been the movement of vocational education programs, services, and activities closer to the people. Presently, vocational education programs are within 25 miles of each Kentuckian. However, we do not have adequate capacity in terms of programs and facilities to satisfy the rapidly increasing demands and interests of people and employers for vocational education preparation and upgrade, refresher, and retraining programs.

It is evident that with the rapid changes in the economic system and changing requirements for employment due to the impact of science and technology, the demand for more efficient vocational education will demand training for higher skilled and technical areas. In order to keep pace with the employment needs of business and industry, vocational education will be constantly required to re-examine and restructure its program offerings. It is evident that as the tenor of the country moves to greater emphasis on equality of vocational education opportunities for people at all age levels, more vocational education opportunities must be made available in all areas— particularly for females and minority groups. This movement will also call for specific vocational education opportunities for the disadvantaged and handicapped in a more wholesome educational environment. Many disadvantaged and handicapped persons need to be provided this opportunity in a residential vocational education setting on a full-time basis.

The action of President Kennedy in appointing the Panel of Consultants on Vocational Education in 1961 to study the national education programs was one of the most needed and forward steps taken in the 1960's. The report of the Panel of Consultants in June 1962, clearly laid out sound recommendations for expanding and improving vocational education. The action of the Congress regarding these recommendations started federally supported programs of vocational education and manpower development moving in the right direction.

Basically, the Vocational Education Act of 1963, as amended in 1968, is a well conceived and well balanced format for the development of a sound program of vocational education and manpower development for this country. The purposes explained in the act clearly delineate the need and the scope. It states that vocational education shall serve:

> persons of all ages in all communities of the State—those in high school, those who have completed or discontinued formal education and are preparing to enter the employment market, those who have already entered the labor market but but need to upgrade their skills and learn new ones, those with special educational handicaps, and those in postsecondary schools—will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training.

It provided adequate scope for the development of a sound comprehensive vocational education program which is required to serve the vocational education needs of the people and the manpower requirements of business and industry throughout the Nation. I believe sound legislation for the support of vocational education and manpower development must retain the categorical feature indicated in the Vocational Education Act of 1963, as amended in 1968, if these areas of special need are to continue to receive the attention that is required for the benefit of the people to be served. The major problem in Federal legislation is not categorical aid. A point in question is the "Better Schools Act of 1973." In reading the "Better Schools Act," it is quite evident that categorical aid is still a primary feature of the act. The only difference is that priorities have been reordered, and the stability for special areas has been removed. Safeguard features for categories of special needs are not assured in that piece of legislation. Stability in funding the vocational education areas indicated in the Vocational Education Amendments of 1968 are not assured. In annual and long-range planning for a sound statewide program, stability of program support is essential.

The major problem in Federal legislation is the manner in which programs, services, and activities are to be delivered to the people. I believe a sound structure for the delivery of vocational education and manpower development programs resides in a sound comprehensive system of vocational education within the State. This involves cooperation, coordination, and articulation of all educational levels and all educational agencies involved. This is essential to avoid unnecessary duplication and proliferation of programs, services, and activities. We need only one system of education that is reinforced by sound administration and leadership all the way up and down the line. Any Federal program that is designed to improve the education status of the people, whether it be vocational education and manpower development or any other phase of education, should be providing through the regularly established State system of education where all components will be appropriately planned, coordinated, and reinforced for the benefit of the people to be served. This arrangement makes it possible to have a sound and effective comprehensive program of education oriented to the basic educational needs of the people and to the social and economic requirements of the State.

If the Federal Government would consolidate all of the education features (programs, services, and activities) of existing Federal legislation which pertain to and support vocational education and manpower development into a single delivery system at the Federal, State, and local levels, education throughout this country would be greatly enhanced in many ways. Some of the benefits would be: (1) A reduction in the cost of facilities by eliminating duplications and increasing the utilization of facilities which are actually needed; (2) more effective use of personnel who are employed to plan, develop, and implement the programs; (3) more effective use of institutions of higher education in carrying on the essential preservice and inservice teacher education programs, research and development programs, and other essential ancillary services; and (4) more appropriate involvement and support of other governmental agencies and the general public in the support of a sound comprehensive system of education. This arrangement would be much less costly to the taxpayers of this country and more effective in attaining the national goals for education which have been established by the Congress and endorsed by other branches of the Federal Government.

There are certain aspects of vocational education and manpower development which are included in other Federal acts but excluded from the Vocational Education Amendments of 1968. If they could be added to this act and, thereby, become a part of a single delivery system for vocational education and manpower development, the total administration and leadership function would be improved. It is believed that this arrangement would satisfy the entire needs for vocational education and manpower development in a more efficient, effective, and economical manner. Such a program should include basic education needs as well as vocational education. It would need to include such aspects as basic communication skills; high school equivalency programs for employability; and outreach programs for the disadvantaged, handicapped, and otherwise unmotivated individuals. Additionally, there are certain support services authorized under other manpower legislation that could be made available through this act. They include health services, physical examinations, legal services, licensing and credentialling fees, subsistence allowances, residential support, and tools needed for special training programs. To satisfy these features through the Vocational Education Amendments of 1968 would require full funding of this act as now authorized plus the additional support which is presently authorized through other federal legislation.

It is believed that "part E" of the Vocational Education Act of 1963, as amended in 1968, would enhance the delivery of a comprehensive State program of vocational education to serve the disadvantaged youth 15 to 21 years of age. Many of these youths live in unfavorable home and community environments which have resulted in academic, social, economic, and cultural handicaps that must be overcome if they are to appropriately participate in the economy and in other areas of social responsibility. Many of these people have left school ill-prepared to earn a living or to engage in other productive social activities. If this portion of the act were adequately funded so that the residential area vocational schools would become a regular part of the State vocational education program, then similar programs now supported by other Federal legislation and operated by other Federal agencies, separate and apart from the regular educational systems of this country, would become a part of the regular education system. Their alignment would strengthen the entire educational system.

In reviewing the Federal vocational education acts and in experiencing the action of the Federal Government in dealing with such matters as Federal financial authorizations and appropriations for the support of vocational education programs, I offer these recommendations:

(1) The Vocational Education Act of 1963, as amended in 1968, calls for the development of an annual and 5-year projected plan for vocational education at the State, regional, and local levels. The plan is intended to serve as a guide in the development of programs, services, and activities and in the allocations of funds to support the provisions of these plans. To make these provisions fully effective, the Federal act should be amended to provide for Federal commitment and Federal financial support to cover the period of the plans called for in the act.

(2) With respect to the annual plan, the Federal Government should provide for two things:

(a) Advanced funding which indicates to the State at least 1 year in advance the appropriations that will be available to support the program.

(b) This advanced funding should also carry the provision that the State will be allowed two fiscal years in which to spend its appropriated funds for the fiscal year in question. This provision should be applied to the annual plan which justified the appropriation.

(3) With regard to the 5-year plan, the Federal Government should approve a 5-year budget which will support the 5-year projected plan that is called for in the Federal act. This is not an uncommon practice in many States. In Kentucky, for example, the

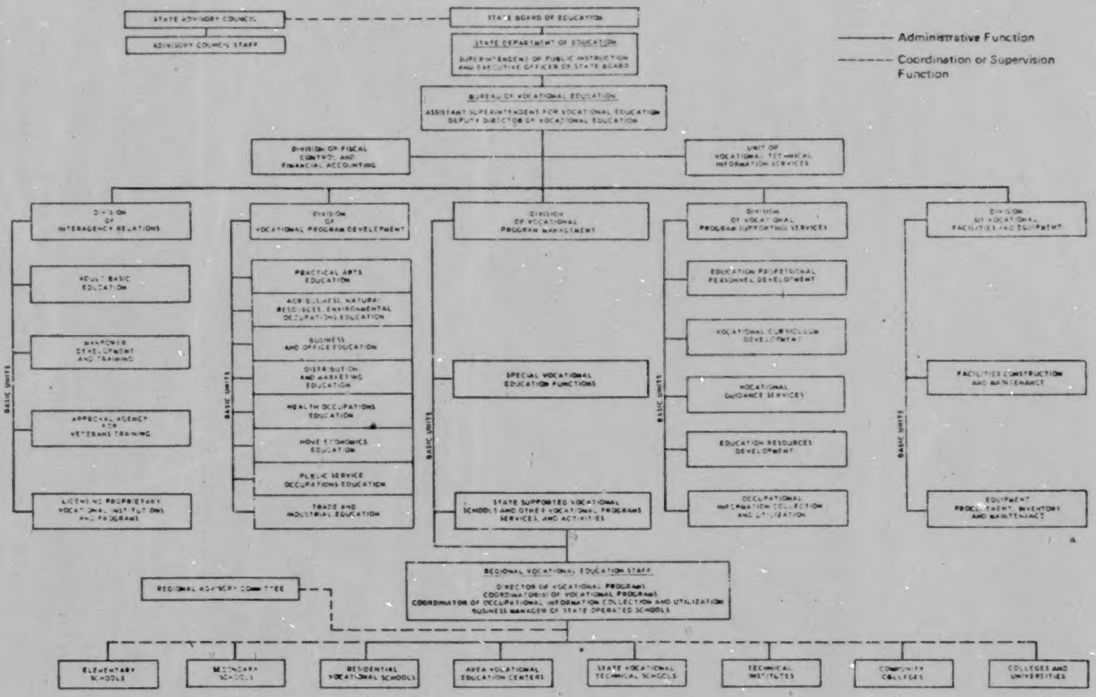
Governor of the State is required to prepare a biennial budget to be submitted to the State legislature for its approval. This budget is approved for a 2-year period which enables State agencies to make advanced plans for 2 years of operation. This practice encourages and demands sound planning and stable program operations.

Another recommendation pertains to the accepted premise that public education in this country is primarily the responsibility of the State. Financial support of public education in this country must be a cooperative responsibility of the Federal, State, and local governments. The Federal Government has indicated its financial responsibility through categorical aid in areas of special national concern, and this action should be continued. Program operation is primarily the responsibility of local education agencies. It is believed that in the future development of a sound educational program in this country, the belief that education is a State function should be fostered. This implies that a State system of education should be retained and strengthened.

The Federal Government should do everything in its power to strengthen the capability of the State in developing a sound statewide system of education that is under the management and control of a single State agency. In reviewing proposed manpower legislation, serious study should be given to the effect of the prime sponsor concept where the Federal Government would bypass the State agency in support of education at the local level. Such a policy would definitely weaken the State's role in providing leadership and coordination of education throughout the State. This practice would ultimately lead to a fragmentation of the State system. A strong State system depends on the development of certain organizations and institutions that are oriented to a common cause. All of the educational agencies, organizations, and institutions within the State should be organized to support and reinforce commonly accepted educational goals and objectives. The Federal Government should not be guilty of bypassing the State agency to deal directly with local education agencies or other prime sponsors in such a manner that the State system would be weakened in carrying out its fundamental and primary responsibilities. This includes such things as long-range and annual program planning; curriculum development; personnel development; facilities planning, construction, maintenance, and untilization; research and development; State program evaluation; and continuing preservice and inservice personnel development. It also includes an understanding, commitment, and support by the general public who is intended to be the benefactor of the entire educational process.

An effort made by any level of government to fragment a statewide system of public education can only lead to an ineffective and weakened system of education with respect to its legal responsibility in serving the vocational education needs of the people and the manpower required by business and industry. Cooperation, coordination, and reinforcement by all levels of government are the hallmarks of a sound State economy and a wholesome social environment for the people.

Figure 6 - ORGANIZATION CHART OF THE BUREAU OF VOCATIONAL EDUCATION
STATE DEPARTMENT OF EDUCATION


STATE ADVISORY COUNCIL
ADVISORY COUNCIL STAFF
STATE BOARD OF EDUCATION
STATE DEPARTMENT OF EDUCATION
SUPERINTENDENT OF PUBLIC INSTRUCTION AND EXECUTIVE OFFICER OF STATE BOARD
BUREAU OF VOCATIONAL EDUCATION
ASSISTANT SUPERINTENDENT FOR VOCATIONAL EDUCATION
DEPUTY DIRECTOR OF VOCATIONAL EDUCATION
Administrative Function
Coordination or Supervision Function
DIVISION OF FISCAL CONTROL AND FINANCIAL ACCOUNTING
UNIT OF VOCATIONAL TECHNICAL INFORMATION SERVICES
DIVISION OF INTERAGENCY RELATIONS
ADULT BASIC EDUCATION
MANPOWER DEVELOPMENT AND TRAINING
APPROVAL AGENCY FOR VETERANS TRAINING
LICENSING PROPRIETARY VOCATIONAL INSTITUTIONS AND PROGRAMS
BASIC UNITS
DIVISION OF VOCATIONAL PROGRAM DEVELOPMENT
PRACTICAL ARTS EDUCATION
AGRIBUSINESS, NATURAL RESOURCES, ENVIRONMENTAL OCCUPATIONS EDUCATION
BUSINESS AND OFFICE EDUCATION
DISTRIBUTION AND MARKETING EDUCATION
HEALTH OCCUPATIONS EDUCATION
HOME ECONOMICS EDUCATION
PUBLIC SERVICE OCCUPATIONS EDUCATION
TRADE AND INDUSTRIAL EDUCATION
BASIC UNITS
DIVISION OF VOCATIONAL PROGRAM MANAGEMENT
SPECIAL VOCATIONAL EDUCATION FUNCTIONS
STATE SUPPORTED VOCATIONAL SCHOOLS AND OTHER VOCATIONAL PROGRAMS SERVICES, AND ACTIVITIES
BASIC UNITS
DIVISION OF VOCATIONAL PROGRAM SUPPORTING SERVICES
EDUCATION PROFESSIONAL PERSONNEL DEVELOPMENT
VOCATIONAL CURRICULUM DEVELOPMENT
VOCATIONAL GUIDANCE SERVICES
EDUCATION RESOURCES DEVELOPMENT
OCCUPATIONAL INFORMATION COLLECTION AND UTILIZATION
BASIC UNITS
DIVISION OF VOCATIONAL FACILITIES AND EQUIPMENT
FACILITIES CONSTRUCTION AND MAINTENANCE
EQUIPMENT PROCUREMENT, INVENTORY AND MAINTENANCE
BASIC UNITS
REGIONAL ADVISORY COMMITTEE
REGIONAL VOCATIONAL EDUCATION STAFF
DIRECTOR OF VOCATIONAL PROGRAMS
COORDINATOR(S) OF VOCATIONAL PROGRAMS
COORDINATOR OF OCCUPATIONAL INFORMATION COLLECTION AND UTILIZATION
BUSINESS MANAGER OF STATE OPERATED SCHOOLS
ELEMENTARY SCHOOLS
SECONDARY SCHOOLS
RESIDENTIAL VOCATIONAL SCHOOLS
AREA VOCATIONAL EDUCATION CENTERS
STATE VOCATIONAL TECHNICAL SCHOOLS
TECHNICAL INSTITUTES
COMMUNITY COLLEGES
COLLEGES AND UNIVERSITIES

3.0 *State Vocational Eucation Programs*

3.1 *Allocation of Funds to Part B Purposes.* The policies and procedures of the State, in allocating Federal and State funds among each of the population groups to be served and for the categories of programs, services, and activities specified in the State Plan, shall initially call for the development of an annual and five-year projected plan for vocational education by each local educational agency. The plan shall indicate a comprehensive intention of determining: (1) the interests, needs, and capabilities of all the people who should have opportunities for vocational education; (2) the extent of economic depression, overall unemployment, unemployment of youth, and the school dropout rate in the area; (3) the availability of employment opportunities for the people; (4) the vocational programs, services, and activities needed and requested for the people; (5) a factual consideration of the availability and intended distribution of local financial resources to support the vocational education programs, services, and activities requested for the designated population groups; and (6) the anticipated amount of State and Federal funds needed to supplement the local funds in developing and implementing the local plan.

Each local educational agency shall update its annual and five-year projected plan for vocational education each year and furnish the supporting evidence required to justify each program, service and activity included in the plan.

The Federal and State funds available for vocational education in Kentucky will be allocated on a broad statewide basis, in terms of the purposes stated in Section 122(a) of the 1968 Act to assure adequate support for each of the purposes within the overall State program before actual allocation of such funds to local educational agencies shall be determined.

3.1–1 Federal funds appropriated for Part B purposes shall be used for vocational education programs, services, and activities for the following population groups:

(a) Persons in high school, including those preparing for advanced or highly skilled postsecondary vocational or technical education.

(b) Persons who have completed or left high school and who are available for study in preparation for entering the labor market.

(c) Persons who have already entered the labor market and who need training or retraining to achieve stability or advancement in employment [other than persons receiving training allowances under the Manpower Development and Training Act of 1962 (42 U.S.C. 2571-2628) or the Trade Expansion Act of 1962 (19. U.S.C. 1801-1991)]

(d) Persons who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program, and

(e) Handicapped persons who because of their handicapping condition cannot succeed in the regular vocational education program without special educational assistance or who require a modified vocational education program.

3.1–2 The programs, services, and activities shall include vocational instruction, construction of area vocational schools, guidance and counseling services, and ancillary services and activities to assure quality in all vocational education programs; such as teacher training and supervision, program evaluation, special demonstration and experimental programs, development of instructional materials, and improved State administration and leadership, including periodic evaluation of State and local vocational education programs and services, in light of information regarding current and projected manpower needs and job opportunities. These programs, services, and activities shall be under public superivision and control (see Section 1.8) or under contract with the State Board of a local educational agency.

3.1–3 Objectives of the instruction shall be designed to (1) prepare individuals for gainful employment as semiskilled or skilled workers or technicians or semiprofessionals in recognized occupations and in new or emerging occupations, or (2) prepare individuals for enrollment in advanced or highly skilled vocational and technical education programs, or (3) assist individuals in making informed and meaningful occupational choices, or (4) achieve any combination of the above.

3.1–4 Admission of Students: Individuals shall be admitted for enrollment in classes and provided instruction on the basis of their potential for achieving the occupational or other objective of such instruction.

3.1-5 Content of Vocational Instruction: (a) The program of instruction will be based on a consideration of the skills, attitudes, and knowledge required to achieve the occupational or other objective of such instruction, and include a planned sequence to those essentials of education or experience (or both) deemed necessary for the individual to achieve such objective.

(b) The program of instruction will be developed and conducted in consultation with potential employers and other individuals or groups of individuals (such as local committees) having skills in and substantive knowledge of the occupations or the occupational fields included in the instruction. It will include the most up-to-date knowledge and skills necessary for competencies required to meet the occupational or other objectives of such instruction.

(c) The program of instruction will be sufficiently extensive in duration and intensive within a scheduled unit of time to enable the student to achieve the occupational or other objectives of the instruction.

(d) The program of instruction will combine and coordinate classroom instruction with field, shop, laboratory, cooperative work, or other occupational experience which (1) is appropriate to the occupational or other objectives of the instruction, (2) is of sufficient duration to develop competencies necessary for the student to achieve objectives, and (3) is supervised, directed, or coordinated by persons qualified under the State Plan.

3.1-6 Facilities and Materials for Instruction: Classroom, libraries, shops, laboratories, and other facilities (including instructional equipment, supplies, teaching aids, and other materials) shall be adequate in supply and quality to meet the occupational or other objectives of the vocational instruction offered. If the State Board or local educational agency cannot provide such facilities and materials, but they are available in business, industrial, service, or other establishment, vocational instruction may be provided in such establishments provided that such instruction meets the standards and requirements of the Act, the Regulations for State Plan Programs, and the State Plan.

3.1-7 Qualified Teachers and Supervisors: The vocational instruction shall be conducted and supervised by qualified teachers, teacher aides, supervisors, and other supporting personnel as provided in the State Plan. (See Section 1.3)

3.1-8 Vocational Guidance and Counseling: The program of instruction shall provide for vocational guidance and counseling personnel and services sufficient to enable such a program to achieve and continue, to meet its objectives and the standards and requirements of the State Plan. Such vocational guidance services shall be designed to (1) identify and encourage the enrollment of individuals needing vocational education, (2) provide the indivduals with information necessary to make meaningful and informed occupational choices, (3) assist them while pursuing a program of vocational instruction, (4) aid them in vocational placement, and (5) conduct follow-up procedures to determine the effectiveness of the vocational instruction and guidance and counseling program.

3.1-9 Vocational Youth Organizations: The program of instruction may include activities of youth organizations associated with vocational education when such activities complement the vocational instruction offered, and they are supervised by persons who are qualified as vocational education teachers.

3.1-10 Evaluation: Evaluation of the results of the program of instruction will be made periodically on the State level, by the State Board, through the superintendent of public instruction and his staff, and the State Advisory Council, and continuously on the local level, with the results being used as a basis for necessary change or improvement in the program through experimentation, curriculum development, training of vocational education personnel, or by other means.

3.1-11 Allowable expenditures for State vocational education programs, services, and activities are: (a) Salaries, wages, and other personnel service cost of the permanent and temporary staff employees, members of advisory groups, and consultants for the performance of services reasonably related to programs, services, and activities, under the State Plan, including (1) the costs of regular contributions of employers to retirement, workmen's compensation, and other welfare funds, and (2) payments for leave earned with respect to such services, including sabbatical or educational leave to the extent provided for in the Federal Regulations for State Plan Programs, and by the State Board for other employees of similar rank or grade.

(b) Travel and transportation expenses attributable to approved vocational education programs, services, and activities in accordance with the State laws, rules, regulations, and standards governing such expenditures. The following categories will be included in allowable travel and transportation expenses when approved by the superintendent of public instruction upon recommendation of the assistant superintendent for vocational education: (1) travel expenses of employees, advisory committee members, and other consultants whose personnel service costs are supported with funds under the State Plan; (2) travel expenses of members of the State Board; (3) transportation expenses of prospective teachers enrolled in an approved teacher education program when they are sent to serve as student teachers in approved vocational education schools or classes so located as to require transportation expenses; and (4) transportation expenses of vocational education students which include only: (i) transportation for one round trip per semester or shorter period determined by the duration of the program from the student's home to the place where he will reside while enrolled in the program; (ii) transportation for one round trip daily between a student's place of residence and the school; (iii) transportation between classes in which the student is enrolled; (iv) transportation between a school and the place where work experience for students is being provided; and (v) transportation of students for field work.

(c) Equipment, Supplies, Teaching Aids, and Other Materials: (1) Funds used for instruction may be expended for the acquisition (by purchase or lease), maintenance, and repair of equipment, supplies, and teaching aids (including reference materials and textbooks to be retained by the local educational agency) used by the instructional personnel in teaching, or by their students in learning, in an instructional situation; such as, classrooms, library, laboratory, shop, or field. Such funds may not be used for supplies to be made into equipment or products to be sold, or to be used by students, teachers, or other persons; except that supplies made into equipment for use under the State Plan may be regarded as equipment eligible for Federal financial participation to the same extent as purchased equipment. (2) Funds under the State Plan may also be used for the acquisition (by purchase or lease), maintenance, and repair of office or other equipment, consumable supplies, or other materials which are reasonably attributable to programs, services, and activities under the State Plan.

(d) Rental of Space: Funds, under the State Plan, may be used for rental of space (including the cost of utilities and janitorial services) in privately or publicly owned buildings if: (1) the expenditures for the space are necessary, reasonable, and properly related to the efficient administration of the program; (2) the State Board or local educational agency will receive the benefits of the expenditures during the period of occupancy commensurate with such expenditures, (3) the amounts paid by the State Board or local educational agency are not in excess of comparable rental in a particular locality; (4) expenditures represent a current cost to the State Board or local educational agency; and (5) in publicly owned buildings like charges are made to other agencies occupying similar space for similar purposes.

3.11 *Percentage Requirements.* The allocations of Federal funds will comply with the following requirements as set forth in the Act:

3.11–1 Disadvantaged Persons: At least 15 percent of the total State's allotment for any fiscal year, or 25 percent of that portion of the State's allotment which is in excess of its base allotment, whichever is greater, shall be used for persons with academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program;

3.11–2 Postsecondary Vocational Education: At least 15 percent of the total State's allotment for any fiscal year, or 25 percent of that portion of the State's allotment which is in excess of its base allotment, whichever is greater, shall be used for vocational education for persons who have completed or left high school and who are available for study in preparation for entering the labor market; and

3.11–3 Handicapped Persons: At least 10 percent of the total State's allotment for any fiscal year shall be used only for vocational education for handicapped persons who, because of their handicapping condition, cannot succeed in the regular vocational education program without special educational assistance or who require a modified vocational education program.

3.12 *Identification of Disadvantaged Persons.* Disadvantaged persons are identified as persons who have an academic, socioeconomic, cultural, or other handicap resulting from poverty, neglect, delinquency, or cultural or linguistic isolation from the community at large. These handicaps prevent the persons from succeeding in regular vocational education programs and require specially designed educational programs or related services or both in order to benfit from vocational education or consumer and homemaking education programs.

3.12–1 The following criteria shall be used in identifying disadvantaged persons:

(a) Academic Disadvantaged: The academically disadvantaged are those persons who manifest one or more of the following: poor educational background and preparation; lack motivation for obtaining an education; severely deficient in the basic skills, as languages, mathematics, and/or other cognitive skills; retarded one or more years in academic achievement; overage for grade placement; low achievement records; low intelligence test scores; irregular in school attendance; poor health and health habits; and the tendency to become school dropouts.

(b) Socioeconomic Disadvantaged: Socioeconomically disadvantaged persons usually are concentrated in rural economically depressed areas and ghettos which include various ethnic groups. The employment patterns of the disadvantaged may be characterized by unemployment, underemployment, or unmeaningful or dead-end jobs which compel them to function at or below poverty level(s). These persons are often dependent on social services to meet their basic needs.

(c) Cultural Disadvantaged: Persons who are culturally disadvantaged manifest social class differences in values, behavior patterns, and aspirations. Their style of living, language patterns, and mores often isolate them from the community at large. This includes ethnic and other subcultural groups which have been discriminated against or have difficulty in assimilating into the majority culture. As a general rule, these persons are highly mobile, lack stability within the community, and are unfamiliar with customs others take for granted.

(d) Other Handicaps: Other persons with disadvantaged handicaps may include, but not be limited to, migrants, the aged, delinquents, institutional inmates, correctional institution parolees and court probationers.

3.12–2 The following procedure will be used for identifying and recruiting disadvantaged persons:

(a) The cooperation of State and local agencies such as, but not restricted to, public assistance, child welfare, department of corrections, bureau of state and federal relations in the State department of education, nonpublic agencies, and private institutions will be secured to identify (recruit) and refer disadvantaged persons who meet the above criteria, to the State and local educational agencies for enrollment in vocational education programs and activities.

(b) Persons working with the Title I (ESEA) Program in the State department of education, the office of economic opportunity, and other recognized agencies and organizations working with disadvantaged persons will be asked to refer those who possess the characteristics of disadvantaged persons to the State department of education, bureau of vocational education, or to local educational agencies for enrollment in vocational education programs, services, and activities.

(c) Guidance counselors and teachers in the elementary, secondary, and vocational schools will be asked to use special tests, interviews, observations, and family consultation to identify disadvantage students in their schools and community and refer them to vocational education programs which are appropriate to their interests, needs, and abilities to benefit from the instruction.

3.13 *Identification of Handicapped Persons.* Handicapped persons are identified as those persons who are mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impairments. These persons, who by reason of their handicapping condition, cannot succeed in a regular vocational or consumer and home-

making education program without special education assistance, or who require a modified vocational or consumer and homemaking education program.

(a) Mentally Handicapped: The mentally handicapped are those who because of retarded intellectual development, as determined by standardized tests, can benefit from special instrutcion and materials.

(b) Hearing Handicapped:

(1) Deaf: The deaf are those persons who have a hearing loss so severe that the learner is unable to comprehend and learn the language arts in a regular manner.

(2) Hard of Hearing: Persons who are considered hard of hearing are those able to understand and learn speech and language but whose hearing prevents them from functioning in a regular class.

(c) Speech Handicapped: The speech impaired will be diagnosed by speech correctionists as deviating or differing from average or normal speech to the extent of hindering communication and requiring specialized instruction for improvement or correction of the handicap.

(d) Visually Handicapped: These are the blind and partially seeing.

(1) Blindness may be established when the loss of total visual efficienecy is 80 percent or more.

(2) The partially seeing are those who have visual limitations but are able to use vision as a chief channel of learning.

(e) Seriously Emotionally Disturbed: The seriously emotionally disturbed are those individuals who are unable to maintain their emotional equilibrium and independence under minor or major stress because of a disturbance in emotional development.

(f) Crippled or Other Health Impaired Persons: These persons are those so handicapped through congenital or acquired defects in the use of their bodies as to be unable to participate in vocational education instruction without special programs and/or services.

(g) The diagnosis of the physical and/or mental condition of the person indicates a reasonable expectation that the special vocational education program and/or services may render the individual able to engage in a suitable occupation.

(h) Testing and other diagnostic techniques consistent with those used by the division of special education, bureau of instruction, and the bureau of vocational rehabilitation, State department of education, and other State agencies having responsibility for the education and/or training of the handicapped will be used by the State department of education, bureau of vocational education, and local educational agencies in identifying handicapped persons for enrollment in special vocational education programs and services.

3.14 *Manpower Needs and Job Opportunities.*

3.14–1. Due consideration shall be given to manpower needs and job opportunities as determined pursuant to 3.26–1 of the State Plan.

3.14–2 In determining allocations of funds to the various purposes in the annual plan, current and projected manpower needs and job opportunities and/or new and emerging manpower needs at the national, State, and local levels will be significant factors used.

3.15 *Vocational Education Needs of Groups to be Served.* Consideration shall be given to the vocational needs of persons in high school, persons who have completed or left high school who require preparation for entering the labor market, persons already in the labor market who need training or retraining for employment, disadvantaged persons and handicapped persons, as determined pursuant to Section 3.26–2 of the State Plan. In determining the allocation of funds for the benefit of the different groups, consideration will be given to:

the groups to be served as determined in Section 3.26–2 of the State Plan,
—number of persons in each group to be served in relation to the total number of persons eligible for vocational education,
—relative costs of programs for different groups, and
—percentage requirements for use of funds.

3.2 *Allocation of Funds to Local Agencies for Programs, Services, and Activities.* Local educational agencies may qualify for Federal funds on the basis of the following policies and procedures.

3.2–1 The local educational agency shall be approved by the State Board for the purpose of providing vocational education programs, services, and activities.

The vocational education programs, services, and activities must be under public supervision and control.

3.2–2 The local educational agency must have participated in the preparation of a regional vocational education plan (the region designated by the State Board) extending over a period of five years. This plan shall show the long-range objectives for serving the vocational needs and requirements of the people within the region, and for each local school district, and includes such information as may be necessary to describe the population groups requiring vocational education as well as the present and projected manpower needs and job opportunities in the region. Such long-range plans shall be approved by the State Board, upon recommendation of the superintendent of public instruction.

3.2–3 The programs, services and activities identified in the approved long-range plan shall indicate the extent to which they are compatible with the long-range objectives established in Part II of this State Plan, and the extent to which they will meet the objectives of the State in serving all population groups.

3.2–4 The local educational agency shall be designated in an approved long-range plan for the purpose of providing programs, services, and activities of benefit to a group or groups of persons for whom vocational education may be needed.

3.2–5 The regional long-range plan, including the plan for each local educational agency, shall be prepared in consultation with an advisory committee representative of people knowledgeable about the manpower needs and job opportunities, people who have an interest in and knowledge about the population groups to be served and persons knowledgeable about vocational education. The regional and local educational agencies' long-range plans shall indicate the extent to which they relate to the Comprehensive Area Manpower Planning System (CAMPS) developed for the region.

3.2–6 The regional long-range plan indicates that the results of periodic evaluations made by the State Advisory Council, the bureau of vocational education, State department of education, were taken into account in determining the vocational needs of all population groups; relative ability of local educational agencies to support their vocational education needs; and the costs of the proposed programs, services, and activities.

3.21 *Local Application.*

3.2–1 Vocational Education Programs, Services, and Activities:

(a) Annual applications from local educational agencies will describe the proposed programs, services, and activities for which funds are being requested. See Appendix. The annual application shall contain such other information as will indicate the following:

(1) That the application has been developed in consultation with the educational and training agencies available in the area to be served by the applicant local educational gency;

(2) That the programs, services, and activities proposed in the application will make substantial progress toward preparing the persons to be served for a career;

(3) That a five-year plan has been developed for meeting the vocational education needs of potential students in the community, district, or region to be served by the local educational agency. (This plan shall be related to the comprehensive area manpower plan if such plan exists); and

(4) That the programs, services, and activities proposed in the application will make substantial progress toward meeting the needs of potential students in the area or community to be served.

(b) The application shall contain such other information as required in determining allocations of Federal funds, pursuant to Section 3.2, and in determining whether the programs, services, and activities proposed therein will otherwise meet all other applicable requirements in the Act, and other policies and procedures concerning the operation of vocational education programs.

(c) The annual application from a local educational agency shall include the following information:

(1) Assurance that the agency will comply with the Act, Regulations for State Plan Programs, and the State Plan;

(2) Evidence that the application has been developed in consultation with the educational and training resources available in the area to be served;

(3) Population groups to be served;
(4) Objectives of the programs to be offered;
(5) Manpower need and job opportunities;
(6) Present programs, services, and activities;
(7) Proposed programs, services, and activities to meet needs;
(8) Estimated expenditures by instructional programs and purpose;
(9) "Current" expenditures for vocational education for two previous fiscal years;
(10) Financial ability of local agency to support programs;
(11) Procedures for evaluating programs; and
(12) Map of area served by agency showing availability of vocational programs.

(d) A request for special programs shall be submitted as a proposal separate and apart from the annual appliction in Section 3.21–3. The proposal requesting support for a special program or project shall include:

(1) Title of the program,
(2) Objectives of the program,
(3) Need for program,
(4) Number and characteristics of persons to be served,
(5) Procedures to be followed,
(6) Procedures for evaluating program,
(7) Length of the program, and
(8) Funding proposed.

3.21–2 Construction of Area Vocational Education Schools: Applications for area vocational school facilities undertaken by the State department of education, through the bureau of vocational education, or by a local educational agency, shall be received and reviewed by the assistant superintendent for vocational education, who will make the recommendation for approval or disapproval of the application, through the superintendent of public instruction, to the State Board, or make suggestions for revision of the application for resubmission. See Appendix.

3.22 *Procedures for Processing Local Applications for Vocational Programs, Services, and Activities.*

3.22–1. Programs, Services, and Activities Undertaken by the State Board:

(a) Area Vocational Schools: Annual plans for vocational programs and applications for funds shall be submitted for each area vocational school operated by the State Board.

A plan shall be prepared by the regional staff in cooperation with the staff in the area vocational school with help from the vocational program development division and the vocational program supporting services division in the bureau of vocational education, State department of education. The regional vocational staff shall be expected to justify the programs planned. The plan will be submitted to the bureau of vocational education. The appropriate bureau staff members will review each plan and submit a recommendation to the assistant superintendent for vocational education.

(b) Other Schools Operated by the State Board: Annual plans for vocational programs and applications for Federal funds for such programs to be conducted in other schools operated by the State Board shall be submitted directly to the bureau of vocational education. The procedure for approval will be the same as described in Section 3.22–1(a).

3.22–2 Programs, Services, and Activities Undertaken by Local Educational Agencies: Annual plans for vocational programs and applications for funds shall be submitted by local educational agencies to the bureau of vocational education. The appropriate bureau staff members will review each plan, rank them according to the criteria established in Section 3.26, and make their recommendations to the assistant superintendent for vocational education.

3.22–3 Coordination with Other State Agencies: The allocation of vocational units through the State Foundation Program shall be conducted in cooperation with the division of finance in the bureau of administration and finance. Schools operated by the State Board shall be operated in cooperation with the department of finance for purchasing equipment and supplies and payment of personnel. The employment of personnel shall be through the State department of personnel. The staff of the bureau of vocational education shall maintain continuous coordination with the State Employment Service, the bureau of rehabilitation services, and the division of special education in the bureau of instruction, in making recommendations for programs and funding. (See Section 1.7 for cooperative arrangements with these agencies.)

Programs operated jointly with the department of corrections, department of child welfare, department of mental health, and other departments of State government require close coordination among all agencies involved. (See Appendix for copies of agreements with these agencies.)

3.22-4 Action on Local Applications: The assistant superintendent for vocational education, after reviewing each local application, will notify such applicant of the decision made, and if approved, indicate the amount of Federal and/or State funds awarded and the conditions to be met.

3.23 *Procedures for Processing Local Applications for Construction.*

3.23-1 Projects Undertaken by the State Board: The State Board, upon the recommendation of the superintendent of public instruction, may authorize the department of finance to purchase sites, plan and make expansion and alteration of existing facilities as well as the construction and acquisition of area vocational school facilities that meet the standards and conditions prescribed by the State Board. (See KRS 56.463.)

3.23-2 Projects Undertaken by Local Educational Agencies:

(a) Any local educational agency that desires financial assistance through Federal and/or State funds for the construction of an area vocational school facility may submit to the superintendent of public instruction, through the assistant superintendent for vocational education, an application with such supporting information as needed to evaluate the project. Such evidence shall indicate that:

(1) The facility will be made available to all residents of the State, or an area of the State, designated and approved by the State Board.

(2) The school's admission requirements provide for the enrollment as regular students both persons who have completed high school and persons who have left high school.

(3) Insofar as Federal, State, and local funds are made available for such projects, the following types of school facilities may be constructed:

A public vocational or technical school used exclusively or principally for the provision of vocational education to persons who have completed or left high school and who are available for study in preparation for entering the labor market.

A specialized public high school used exclusively or principally for the provision of vocational education to persons who are available for study in preparation for entering the labor market and offers approved vocational education programs in not less than five different occupational fields.

The department of a public high school used exclusively or principally for providing vocational education in no less than five different occupational fields to persons who are available for study in preparation for entering the labor market.

The department or division of a public junior college, or community college, technical institute, or university, which provides vocational education in no less than five different occupational fields, under the supervision of the State Board, leading to immediate employment but not necessarily leading to a baccalureate degree.

(b) Criteria in Determining Relative Priorities of Projects: The State Board, upon recommendation of the superintendent of public instruction and the assistant superintendent for vocational education, shall approve projects on the basis of the following criteria:

(1) Number of people available for training;

(2) Socioeconomic conditions in the area to be served;

(3) Adequacy of the proposed facility, site, and location to serve the training needs;

(4) Attitude, demands, and support of the people within the area to be served by the facility; and

(5) Job opportunities available.

(c) Terms and Conditions for Approval of Projects: The State Board will require the following assurances in approving projects for Federal financial participation:

(1) A written statement from an authorized official indicating the State building codes and requirements will be met before approval of the project is given and financial support is made available.

(2) Copies of project plans indicating that the facility will be functional and made available to the State Board for review. Facility plans will be designed in the most functional and economical manner possible.

(3) Evidence that sufficient funds are available, or have been voted, to meet the State and local share of the cost of construction of the facility.

(4) Evidence that sufficient State and local funds will be available, when construction is completed, for effective use of the facility for the purposes for which it is being constructed.

(5) A written statement from appropriate officials indicating that the interest in the land on which the facility is located is sufficient to assure undisturbed use and possession during the expected usable life of the facility. This includes the purpose of construction and operation of the school facility covered in the project.

(6) A written statement from the appropriate official indicating that representatives of the U.S. Office of Education, and such other person as the U.S. Commissioner may designate, will have access at all reasonable times to the project while it is being planned or constructed, and the contractor will provide proper facilities for such access and inspection.

(d) Action by State Board:

(1) The assistant superintendent for vocational education will evaluate all applications received to make sure that they are prepared in accordance with the provisions of the State Plan and State laws, rules, and regulations. After careful review of the applications based on established criteria, the assistant superintendent will make a recommendation to the superintendent of public instruction for his consideration in making his recommendation to the State Board regarding each project.

(2) The relative ability of the particular local educational agency to provide the resources necessary to meet the vocational needs in the area served by the educational agency will be considered in allocating the State's allotment of Federal funds for construction. (See KRS 162.070.)

3.23-3 Coordination with Other State Agencies: The approval of the department of finance shall be secured for the construction and remodeling of all area vocational school facilities. Such construction or remodeling shall meet the standards and requirements of the engineering division of the finance department and the division of buildings and grounds in the State department of education.

3.24 *Maintenance of Effort.* Federal funds shall not be used to supplant local or State funds in the operation of vocational programs, services, or activities.Funds will not be paid to a local educational agency which does not maintain its average per pupil fiscal effort. The fiscal effort shall be determined by reports from the department of revenue to the division of finance, bureau of administration and finance, in the State department of education. These reports shall be used by the department of education in determining the allocation of funds to local districts under the Foundation Program. No funds will be paid to a local educational district whose combined fiscal effort is less than the preceding year or less than that in the second preceding fiscal year by more than five percent unless the district can satisfy the State Board of Education that unusual circumstances beyond the control of the local board of education have brought about this condition.

3.25 *Matching.*

3.25-1 Overall State Matching:

(a) The Federal share of expenditures incurred for vocational education programs, services, and activities under Part B of the Act shall not exceed 50 percent of State and local expenditures on a state-wide basis, except that 100 percent of the cost programs for disadvantaged in areas of high concentration of youth unemployment and school dropouts, may be financed with funds allotted under Section 102(b) of the 1968 Vocational Education Act. However, Federal funds will not be allocated in a manner which requires local educational agencies to match them at a percentage ratio uniform throughout the State.

(b) In allotting funds to local boards of education, the:

(1) Statewide matching provisions shall be maintained,

(2) The maintenance of effort requirement shall be fulfilled, and

(3) The reasonable tax effort indicated in Section 3.25-2 of the State Plan shall be fulfilled.

(c) In allotting funds throughout the State, the criteria set forth in Sections 3.26-1, 3.26-2, 3.26-3, and 3.26-4 shall be taken into consideration.

3.25-2 Reasonable Tax Effort: The tax effort in each local district shall be considered in allocation of funds to local districts. Information received annually on reports from the department of revenue, which show the local wealth and the local tax effort, are used by the bureau of administration and finance, State department of education, in determining the reasonableness of the local education districts' tax effort in comparison with other districts in the State. It is the intention of the State Legislature under State law to assure substantially equal public school educational opportunities through a foundation program, for those in attendance in the public schools in the State. This shall be done by requiring each district to make the same local tax effort for school purposes. The local tax effort shall be determined by multiplying the total equalized value of all property in the State, subject to taxation for school purposes, by the percentage the fair cash value in each district is of the total equalized value of all property in the State subject to taxation for school purposes. The district tax levy shall be at such a rate as is necessary to provide the required local tax effort. No local educational district making a reasonable tax effort will be denied funds for the establishment of a new vocational education program solely because it is unable to pay to the non-Federal share of the cost of the program.

Note: This provision does not apply to local educational agencies not supported directly by local tax revenues such as State-operated schools and institutions funded through direct appropriations of the State Legislature, (See KRS 157.380.)

3.26 *Criteria for Determining Relative Priority of Local Application.* The priority of local applications shall be determined on the basis of the following criteria:

3.26-1 Manpower Needs and Job Opportunities: Due consideration shall be given to information regarding current and projective manpower needs and job opportunities, particularly new and emerging needs and opportunities on the local, State, and national levels.

Particular consideration shall be given local educational agencies whose proposed vocational education programs are best designed to:

(a) Fulfill current or projected manpower needs in existing occupations at the local level by preparing students for current or projected opportunities in such occupations.

(b) Fulfill new and emerging manpower needs at the local, State, and national levels by preparing students for new and emerging job opportunities at such levels. The State Board, through the superintendent of public instruction and his staff, will:

(1) Identify current and projected manpower needs and job opportunities, particularly new and emerging needs and opportunities, on the local, State, and national levels by utilization of the information avail-

able in the National Outlook; requests and placement records of the schools; State and district Cooperative Area Manpower Planning System; department of labor information; and special studies such as the John Fulmer and Norman Medvin Reports on Louisville, Kentucky.

(2) Give due consideration to the period evaluation reports from the State Avisory Council, evaluation reports from schools, and from the bureau of vocational education evaluation section, and make the necessary adjustments to meet the needs of the people.

(3) Give due consideration to the information made available from the State Employment Service through a cooperative arrangement. Such information, together with all other pertinent information, will assist the State Board in determining the occupations for which persons are to be trained, according to job opportunities, and in providing vocational guidance counseling to students. Through the cooperative arrangement, information will also be provided to the Employment Service pertaining to the qualifications of students completing vocational education courses to assist in the placement of such persons into employment.

(4) Give due consideration in indentifying manpower needs and job opportunities by utilizing all studies available, special studies, industrial studies by the department of commerce, area planning groups, community action groups, and various local advisory committees. Research funds and other special funds may be used to up-date and develop special studies in the identification of manpower needs and job opportunities in order to meet the training needs of people.

3.26–2 Vocational Education Needs: The vocational education needs of the people served by a local educational agency will be determined on the basis of:

(a) Number of persons in each population group now being served by vocational programs and the percentage of those served in each group to the total. This shall include persons enrolled in both public and private schools.

(b) Vocational programs conducted by the local educational agency which are best designated to: (1) fulfill current and projected manpower needs in existing occupations at the local level; and (2) meet the needs for new and emerging job opportunities at local, State, and national levels.

(c) Long-range plans submitted by the district.

(d) Periodic evaluation of programs in terms of program objectives.

(e) The criteria used for determining the vocational needs shall include: (1) Enrollment in vocational programs as compared to total enrollment in schools as shown in school annual reports to the State department of education; (2) projected manpower needs and job opportunities secured from the Employment Service; department of commerce, and other agencies and organizations concerned with manpower needs; (3) Results of periodic evaluation of programs in terms of their effectiveness in reaching their objectives; (4) Information secured from results of cooperative agreements with other organizations and agencies serving the persons enrolled in the vocational program; and (5) Any information available which will identify the vocational education needs of population groups.

3.26–3 Relative Ability to Provide Resources: The Foundation Program formula for providing state allocation of funds to local districts shall be used in determining the relative ability to pay. Schools shall be groups according to the percentage of the total cost of their school program supported by the allotment of funds from the Foundation Program. (See KRS 157.310, 157.330, 157.360, 157.370, 157.380, 157.390 and 157.400.)

3.26–4 Relative Cost of Programs, Services, and Activities:

(a) The cost of vocational programs, services, and activities that local agencies provide which is in excess of the cost normally attributed to the cost of education in such local educational agencies shall be considered. Excess costs may be those: (1) which are due to variations in price and wage levels or other economic conditions existing in the area served by the local educational agency; (2) due to excess cost because of the necessity of supplying special services and bus transportation for students or unusual excessive maintenance costs of education provided by the local educational agency.

(b) Priority shall be given to vocational educational programs, services, and activities in local agencies having excessive costs because of the need for supplying special services (other than those necessary to meet the special vocational education needs of certain population groups, such as disadvantaged or handicapped persons), bus transportation for students, or unusual and excessive maintenance costs of outdated buildings and facilities, which are not usually part of the cost of education provided by other local educational agencies in the State.

3.26–5 Other Criteria of the State: As other conditions arise, criteria shall be developed to meet these conditions.

3.27 *Application of Criteria in Determining the Relative Priority of Local Applications.* Federal funds for Part B purposes will be allocated to local educational agencies which are locally tax supported; to local educational agencies which are not aided by local taxes but supported by a direct appropriation from the State Legislature; and for ancillary or supporting services, upon recommendation of the assistant superintendent for vocational education to the superintendent of public instruction for approval.

The criteria explained in Sections 3.13, 3.26–1, 3.26–2, 3.26–3, and 3.26–4 of Part I of this State Plan will be used to determine the relative priorities of local applications for vocational education programs, services, and activities submitted for approval. These criteria will be used in developing a mathematical formula to determine the apportionment factor for each eligible local school district in the State. The apportionment factors will be used to determine the amount of the available Federal funds that each local school district will be eligible to receive to pay a part of the total cost of the vocational programs, services, and activities included in its local plan when approved.

The Federal funds used to help finance vocational programs, services, and activities conducted by local educational agencies, which are not aided by local taxes but supported by a direct apportionment from the State Legislature, will be allocated to each of the vocational education regions of the State on the basis of relative needs. The same mathematical formula used to determine the apportionment factors for the local school districts will be used to determine the apportionment factor for each vocational education region of the State. The regional apportionment factors will be used to determine the amount of the available Federal funds that each vocational education region will be eligible to receive to pay a part of the total cost of the approved vocational programs, services, and activities included in the annual plans of the local educational agencies not aided by local taxes but supported by a direct appropriation of the State Legislature. Within each vocational education region the Federal funds will be allocated to the eligible local educational agencies on the basis of approved school budgets, approved programs, or approved projects.

Any local school district not wishing to submit a plan for the use of the Federal funds for Part B purposes which it is eligible to receive may be allowed to cooperate with an adjoining local school district in providing the vocational education programs, services, and activities needed by its people to the extent possible.

Any funds not claimed by eligible local school districts shall be distributed to eligible local school districts requesting additional funds on the basis of approved programs, services, or activities which are included in their local annual plan.

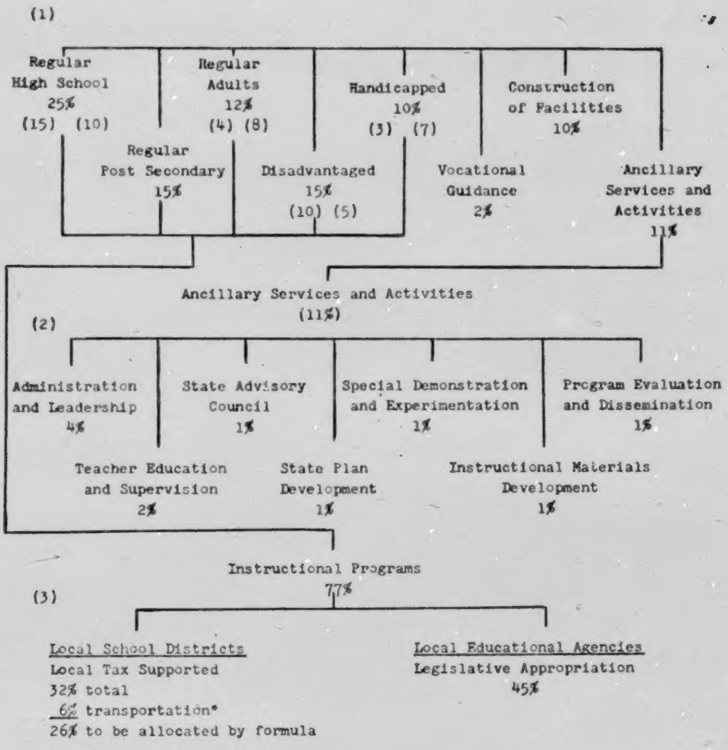
The first step to be taken in the allocation of Federal funds for Part B purposes will be to make an overall percentage distribution which covers all functions to be carried out for the benefit of approved programs, services, and activities. The following diagram will be followed in making an overall distribution of the funds available for Part B purposes:

The overall distribution percentage factor may be amended by the State Board of Education on the recommendation of the superintendent of public instruction when there is sufficient evidence to justify an amendment.

Mathematical Formula: In allocating Part B (Public Law 90–576) vocational education funds among eligible local school districts, criteria pertaining to the following factors shall be taken into account: (a) manpower needs and job opportunities; (b) vocational education needs of the people; (c) reasonable local tax effort; and (d) relative costs of programs, services, and activities. Consideration of these factors is one thing; development of a precise mathematical formula for performing the appropriate allocation of funds becomes much more involved. In using a mathematical formula, it is necessary

Part B
Federal Funds
(100%)

I. Overall Distribution


(1)
Regular High School 25% (15) (10)
Regular Adults 12% (4) (8)
Handicapped 10% (3) (7)
Construction of Facilities 10%
Regular Post Secondary 15%
Disadvantaged 15% (10) (5)
Vocational Guidance 2%
Ancillary Services and Activities 11%
Ancillary Services and Activities (11%)
(2)
Administration and Leadership 4%
State Advisory Council 1%
Special Demonstration and Experimentation 1%
Program Evaluation and Dissemination 1%
Teacher Education and Supervision 2%
State Plan Development 1%
Instructional Materials Development 1%
Instructional Programs 77%
(3)
Local School Districts
Local Tax Supported
32% total
6% transportation*
26% to be allocated by formula
Local Educational Agencies
Legislative Appropriation
45%

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*Transportation costs cannot be built into the mathematical formula because many school districts in the State do not have to transport their students to the vocational schools which are located in their school districts. Therefore, each year an estimate will be made of the cost of transportation to local school districts for transporting their high school students to state vocational-technical and area vocational education centers. This transportation cost will be part of the total Part B Federal funds available to local school districts. The percent available to local school districts will be reduced by the percent to be used to pay for transportation before using the formula to calculate the amounts to be allocated to the eligible local school districts to support their vocational programs, services, and activities.

to make use of data that are currently being collected by some arm of government—Federal, State or local—othewise, the allocation process must involve a substantial research effort. The data to be used with the following formula are all readily available to the bureau of vocational education, State department of education, and are considered to be valid and reliable.

II. Regular Mathematical Formula (a)

$$\frac{\text{(1) District Measure of Manpower Needs and Job Opportunities} + \text{(2) District Measure of Vocational Education Needs} + \text{(3) District Measure of Reasonable Local Tax Effort} + \text{(4) District Measure of Relative Cost of Programs, Services, and Activities}}{\text{Divided by 4}}$$

= (5) District Measure; (then) (6) Add all of the district measures to get a "Total for the State"; (then) (7) $\frac{\text{District Measure}}{\text{Total for the State}}$ = (8) District Apportionment Factor for Part B Purposes (Public Law 90-576)

(a) Equal weight is given to the four elements in the formula.

How to Calculate Each Part of the Formula

1. District Measure of Manpower Needs and Job Opportunities

(a) County Measure of Job Opportunities = $\frac{\text{County Total of Nonprofessional Workers}}{\text{State Total of Nonprofessional Workers}}$

(b) District Share of County Measure = $\frac{\text{Total District School Population}}{\text{Total County School Population}}$

School population in a county and in a school district within a county is considered to be a reliable statistic in estimating the total population on the basis of "persons per school child." It is relatively stable within a county.

(c) District Measure of Job Opportunities = County Measure of Job Opportunities 1(a) X District Share of County Measure 1(b)

School district measures summed for all districts within a county will add to the county measure; county measures summed for all counties within the State will add to 1, which is the State total.

2. District Measure of Vocational Education Needs

(a) Steps Involved

(1) Estimate of the Need of High School Students for Vocational Education = High School Student Population in the District X Proportion of High School Students Going Into Vocations

Since no one knows exactly what are the manpower needs and job opportunities or the vocational education needs, locality by locality in the State, the following basic assumptions have been made with regard to the use of data: (1) that manpower needs and job opportunities will be greatest where existing employment is greatest or where business is currently concentrated; (2) that vocational education needs are greatest where the concentration of people is greatest; (3) that additional weight needs to be given to low income people because they are in the greatest need, per capita, for vocational

$$\text{(2) Estimate of the Need of Unemployed Adults for Vocational Education} = \text{General Unemployment Rate for the County} \times \text{Total District Adult Population, 20 to 65}$$

$$\text{(3) Estimate of the Need of Unemployed Youth for Vocational Education} = \text{Youth Unemployment Rate for the County} \times \text{Total District Youth Population, 15 to 19}$$

(b) Estimate of the Total Vocational Education Needs for a District =

2(a)(1) + 2(a)(2) + 2(a)(3)

$$\text{(c) Estimate of the Adjusted District Vocational Education Needs} = \text{Estimate of the Total Vocational Education Needs for the District} \times \frac{\text{State Median Income}}{\text{County Median Income}}$$

(d) Add the "estimate of the adjusted district vocational education needs" for all districts to get the estimate of the State total vocational education needs.

$$\text{(e) District Measure of the Vocational Education Needs} = \frac{\text{Estimate of the Adjusted District Vocational Education Needs 2(c)}}{\text{Estimate of the State Total of Vocational Education Needs 2(d)}}$$

A school district's measure of the vocational education needs is the proportion of the total State vocational education need accruing to it.

3. District Measure of Reasonable Local Tax Effort

$$\text{District Measure of the Reasonable Local Tax Effort} = \frac{\text{District Allotment of Funds under the Basic Foundation Program Calculation}}{\text{State Allotment of Funds under the Basic Foundation Program Calculation}}$$

4. District Measure of Relative Cost of Programs, Services, and Activities in Relation to Average Daily Attendance

$$\text{(a) District Equalized Current Expenses} = \text{District Current Expenses} \div \frac{\text{Per Pupil Current Expenses}}{\text{State Average per Pupil Current Expenses}}$$

$$\text{(b) District Measure of Relative Cost of Programs, Services, and Activities} = \frac{\text{District Equalized Current Expenses}}{\text{State Total Equalized Current Expenses}}$$

III. Mathematical Formula for the Disadvantaged

In allocating Part B funds for the disadvantaged, the regular formula for allocating Part B funds will be used with one additional district measure

training; and (4) that the handicapped are equally distributed among the population.

Sources of Data Used in Determining the Apportionment Factor for Each Local School District Which has Local Tax Support:

(1) Total County Employment, State Department of Economic Security

(2) School Population of County and State, State Department of Education, Bureau of Pupil Personnel Services

(3) Proportion Going Into Vocations, Equal Employment Opportunity Commission Tapes and State Department of Economic Security

for school dropouts added. The criteria explained in 3.12 will be used in addition to the other criteria used for Part B purposes. Local school districts eligible for support are shown in Part II, Section 2.1. The formula for the disadvanataged is:

(1) District Measure of Manpower Needs and Job Opportunities + (2) District Measure of Vocational Education Needs + (3) District Measure of Reasonable Local Tax Effort +

(4) District Measure of Relative Cost of Programs, Services, and Activities + (5) District Measure of School Dropouts

Divided by 5

= (6) District Measure for Disadvantaged; (then) (7) Add all district measures to get the State total for the disadvantaged;

$$\text{(then)}\quad \text{(8)}\,\frac{\text{District Measure for Disadvantaged}}{\text{State Measure for Disadvantaged}} = \text{(9) District Apportionment Factor for the Disadvantaged under Part B (Public Law 90-576)}$$

District measures 1, 2, 3, and 4 are calculated here exactly the same as they are in the regular formula. The district measure of school dropouts is calculated as follows:

(5) District Measure of School Dropouts

$$\text{District Measure of School Dropouts} = \frac{\text{Number of School Dropouts for Districts}}{\text{Number of School Dropouts in all Districts}}$$

In making allotments to local school districts, the State Board may supplement the Federal funds allocated to a local school district under the formula with State funds so that each school district will be allotted a total amount which is not less than last years allotment for the same programs, services, and activities provided. However, if there is a reduction in the overall appropriation of Federal funds for Part B purposes, the amount allotted to each local school district will be reduced on a pro rata basis.

(4) Unemployment Rate for County, State Department of Economic Security

(5) Population of County, U.S. Census Estimate, 1968

(6) Percent of Distribution by Age for Each County, County and City Data Book, U.S. Department of Commerce

(7) Median Income for County, County and City Data Book, U.S. Department of Commerce

(8) Local Tax Effort, State Department of Education

(9) Receipts and Expenditures, State Department of Education

(10) Holding Power and Graduates, Kentucky Public and Nonpublic High Schools, May, 1968, Classes, Division of Research, State Department of Education, February, 1969

FUNDS BUDGETED BY LOCAL SCHOOL DISTRICT,[1] 1971-72 AND 1972-73

Region and school district	Regular "B" entitlement	Regular "B" total	Agriculture	Business and office	Distributive education	Home economics (gainful)	Health	Trade and industrial	Other	Disadvantaged "B"	Handicapped "B"	Cooperative "G"	Consumer and homemaking "F"	Total
Region 1—Paducah:														
Ballard county	2, 263	3, 271	2, 225	1, 046						835		1, 081	635	5, 822
Calloway County	4, 205	13, 752	13, 752										599	14, 351
Murray	2, 836	2, 096		1, 383	713						11, 307	1, 274	350	15, 027
Carlisle county	1, 660	1, 517	933	584									540	2, 057
Fulton County	2, 392	2, 400	2, 400							3, 767			788	6, 955
Fulton	1, 066												200	200
Graves County	7, 029	5, 550	5, 550										1, 950	7, 500
Mayfield	3, 297	1, 638		1, 638						6, 807	13, 019	954	246	22, 664
Hickman County	2, 103	1, 950	1, 950									1, 471	750	4, 171
Marshall County	6, 558	10, 966	4, 404	6, 426	136					10, 158	6, 050	2, 469	1, 410	31, 053
McCracken County	8, 502	11, 910	6, 533	3, 459	1, 418	500				10, 715		5, 659	1, 903	30, 187
Paducah	8, 413	2, 168		755	1, 031	382				10, 175	8, 142	500	763	21, 748
Region totals	50, 324	57, 218	37, 747	15, 291	3, 298	882				42, 457	38, 518	13, 408	10, 134	61, 735
Region 2—Madisonville:														
Caldwell County	4, 667	5, 740	2, 901	1, 755	1, 084								872	6, 612
Christian County	15, 160	35, 757	25, 002	3, 060	2, 695					10, 037	10, 215	1, 033	1, 690	58, 732
Crittenden County	2, 754	3, 922	1, 609	2, 313						1, 491	424		360	6, 197
Hopkins County	10, 219	11, 066	3, 962	5, 412	1, 467	225				7, 193	1, 461	1, 547	2, 156	23, 423
Dawson Springs	719												150	150
Earlington	897												315	315
Livingston County	2, 477	2, 950	1, 719	1, 231						5, 528			735	9, 213
Lyon County	1, 757	13, 230	13, 230							768		229	653	14, 880
Mulenberg County	6, 114	4, 284	4, 284							3, 172	388		1, 440	9, 284
Central City	1, 360												550	550
Greenville	1, 428												313	313
Todd County	3, 768	2, 529	1, 750	779						1, 984			1, 200	5, 713
Trigg County	3, 336	3, 243	1, 922	555	766					1, 544	1, 401		950	7, 138
Region totals	54, 656	82, 721	56, 379	20, 105	6, 012	225				31, 717	13, 889	2, 809	11, 384	142, 520
Region 3—Owensboro:														
Daviess County	10, 257	19, 309	18, 279	1, 030						10, 710		2, 492	1, 065	33, 576
Owensboro	9, 956	8, 219		6, 310	1, 909								5, 366	13, 585
Hancock County	1, 964	1, 975	1, 975							572			240	2, 787
Henderson County	6, 475	3, 635	3, 635							3, 677			1, 075	8, 387

Henderson	4, 150									375	375
McLean County	3, 013	2, 825	2, 825				1, 792			1, 058	5, 675
Ohio County	6, 261	4, 450	3, 528	922			2, 910			1, 400	8, 760
Union County	4, 489	17, 510	14, 388	2, 501	621			4, 150		750	22, 410
Webster County	2, 782	2, 526	2, 376	150			1, 491			925	4, 942
Providence	1, 182									100	100
Region totals	50, 529	60, 449	47, 006	10, 913	2, 530		21, 152	4, 150	2, 492	12, 354	100, 597
Region 4—Bowling Green:											
Allen County	3, 479	2, 307	2, 307				5, 892	4, 712		850	13, 761
Scottsville	1, 026	563			563					475	1, 038
Barren County	5, 605	7, 334	7, 334				5, 720			1, 715	14, 769
Caverna	1, 469									375	375
Glasgow	3, 844	300			300					1, 000	1, 300
Butler County	3, 963	2, 675	1, 050	1, 625			809	8, 941		570	12, 995
Edmonson County	3, 652	3, 635	1, 443	2, 192			1, 670			550	5, 855
Hart County	4, 556	15, 098	13, 358	1, 577		163	1, 951			1, 300	18, 349
Logan County	5, 047	9, 566	9, 566				6, 799			2, 300	18, 665
Russellville	2, 338	1, 234			900	334	2, 002	9, 440		725	13, 401
Metcalfe County	2, 868	4, 031	2, 948		1, 083		1, 613	9, 980		450	16, 074
Monroe County	4, 623	12, 124	12, 124				4, 631	4, 200		2, 550	23, 505
Simpson County	4, 604	15, 650	13, 027	929	1, 694		1, 964	9, 209		875	27, 698
Warren County	8, 202	11, 157	4, 035	7, 122			2, 746	17, 804		2, 000	33, 707
Bowling Green	8, 402	7, 255		5, 522	1, 733		2, 700	6, 540		800	17, 295
Region totals	63, 678	92, 929	67, 192	18, 967	6, 273	497	38, 497	70, 826		16, 535	218, 787
Region 5—Louisville:											
Breckinridge County	4, 425	3, 175	3, 175					9, 681	279	1, 000	14, 135
Cloverport	515									125	125
Grayson County	4, 380	1, 532	1, 532				3, 479			419	5, 430
Leitchfield	1, 675									200	200
Hardin County	11, 408	11, 984	3, 542	8, 119		323	3, 544	10, 916	958	2, 725	30, 127
Elizabethtown	3, 617	4, 985		4, 985			2, 450	7, 400		550	15, 385
Larue County	3, 708	2, 517	1, 300	1, 217			1, 781			500	4, 798
Marion County	5, 355	2, 137	2, 137				2, 913	10, 866		800	16, 716
Meade County	3, 950	4, 261	1, 475	2, 786			2, 374			725	7, 360
Nelson County	4, 464	8, 911	2, 300	6, 611			1, 066		521		10, 498
Bardstown	1, 873	2, 248		2, 248			1, 614	20, 788		340	24, 990
Washington County	3, 351	1, 746	1, 746							204	1, 950
Region totals	48, 721	43, 496	17, 207	25, 966		323	19, 221	59, 651	1, 758	7, 588	131, 714

See footnotes at end of table.

FUNDS BUDGETED BY LOCAL SCHOOL DISTRICT,[1] 1971-72 AND 1972-73—Continued

Region and school district	Regular "B" entitlement	Regular "B" total	Agriculture	Business and office	Distributive education	Home economics (gainful)	Health	Trade and industrial	Other	Disadvantaged "B"	Handicapped "B"	Cooperative "G"	Consumer making "F"	Total
Region 6—Louisville:														
Bullitt County	6, 126	4, 530	1, 162	3, 368						5, 169	22, 493		2, 320	34, 512
Henry County	2, 531	4, 021	1, 358	2, 663									537	4, 558
Eminence	806												485	485
Jefferson County	116, 470	112, 367		49, 905	12, 010	3, 505	15, 000	31, 947		57, 985	49, 579	26, 164	30, 155	276, 250
Louisville	66, 881	56, 993		11, 805	2, 225	495	276	42, 192		72, 594		15, 114	17, 076	161, 777
Oldham County	3, 648	4, 398	1, 169	3, 029		200				2, 005	1, 509		687	8, 599
Shelby County	3, 685	3, 150	3, 150										730	3, 880
Shelbyville	2, 170												338	338
Spencer County	1, 683	732	732							523			470	1, 725
Trimble County	1, 523	1, 065	1, 065								1, 927		315	3, 307
Region Totals	205, 523	187, 256	8, 636	70, 770	14, 235	4, 200	15, 276	74, 139		138, 276	75, 508	14, 278	53, 113	495, 431
Region 7—Covington:														
Boone County	6, 801	2, 398	588	1, 393	417					2, 563		1, 920	1, 300	8, 181
Walton Verona	873	1, 235	700		535					5, 498	4, 140	895	625	12, 393
Campbell County	5, 038	6, 284	1, 000	4, 129	1, 155					2, 519		645	550	9, 998
Bellevue	1, 362	185			185							470	80	735
Dayton	1, 806	664		664						360		350	360	1, 734
Fort Thomas	2, 378	2, 300		2, 300									200	2, 500
Newport	4, 190	12, 567		11, 615	952					15, 057	36, 006	2, 335	883	66 848
Silver Grove	471	80			80							365	475	920
Carroll County	2, 563	1, 350	1, 350							3, 506			575	5, 431
Gallatin County	1, 215	538	538										85	623
Grant County	2, 318	3, 091	1, 741	1, 250		100				1, 419	865	405	300	6, 080
Williamstown	455												347	347
Kenton County	10, 132	4, 583	500	4, 083									555	5, 138
Beechwood	664													
Covington	8, 938									5, 330				5, 330
Erlanger	2, 906	1, 526		1, 526						1, 597			325	3, 448
Ludlow	1, 094												351	351
Owen County	2, 387	1, 691	1, 000	691						1, 415			625	3, 731
Pendleton County	3, 062	3, 007	1, 715	290	1, 002					678			750	3, 435
Region totals	58, 953	41, 499	9, 132	27, 941	4, 326	100				39, 942	41, 011	7, 385	8, 386	138, 223

Region 8—Covington:											
Bracken County	1,635	947	947				358			815	2,120
Augusta	454									475	475
Fleming County	3,548	3,362	1,157	2,205			2,011	3,852		775	10,000
Lewis County	4,048	850	850				4,319			756	5,925
Mason County	3,342	2,235	2,235				3,018			851	6,104
Marysville	1,799									165	165
Robertson County	734	1,150	1,150							225	1,375
Region totals	15,560	8,544	6,339	2,205			9,706	3,852		4,062	26,164
Region 9—Ashland:											
Bath County	3,211	1,888	1,888				2,090			600	4,578
Menifee County	1,972	1,800	1,800				1,950			200	3,950
Montgomery County	3,607	2,398	2,398				3,960	4,535		450	11,343
Mount Sterling	1,545						897			551	1,448
Morgan County	4,196	2,346	2,346				2,572				4,918
Rowan County	4,208	800	800				2,021			1,225	4,046
Region Totals	18,739	9,232	9,232				13,490	4,535		3,026	30,283
Region 10—Ashland:											
Boyd County	5,206	3,441	500	2,194	747		3,800	732		525	8,498
Ashland	8,411	3,798		2,678	1,120					17,079	20,877
Catlettsburg	1,121									1,200	1,200
Fairview	1,802						2,670			570	3,240
Carter County	7,260	1,940	540		1,400		1,905			1,970	5,815
Elliott County	2,798	550	550				1,634				2,184
Greenup County	5,683	1,950	1,950				3,271			2,365	7,586
Raceland	1,125									350	350
Russell	3,541									1,872	1,872
Lawrence County	4,110	12,444	12,444							1,000	13,444
Region Totals	41,067	24,123	15,984	4,872	3,267		13,280	732		26,931	65,066
Region 11—Paintsville:											
Floyd County	14,604	1,175	1,175				8,008			975	10,158
Johnson county	5,747	7,386	2,942	4,074		370	2,729			1,630	11,745
Paintsville	1,627						300				300
Magoffin County	5,564	635	635				3,040			220	3,895
Martin County	4,910									610	610
Pike County	23,420	16,777	1,287	14,492	998		25,085	10,225		2,675	54,762
Pikesville	1,900								1,250	255	1,505
Region Totals	57,772	25,973	6,039	18,566	998	370	39,162	10,225	1,250	6,365	82,975

See footnotes at end of table.

FUNDS BUDGETED BY LOCAL SCHOOL DISTRICT,[1] 1971-72 AND 1972-73—Continued

Region and school district	Regular "B" entitlement	Regular "B" total	Agriculture	Business and office	Distributive education	Home economics (gainful)	Health	Trade and industrial	Other	Disadvantaged "B"	Handicapped "B"	Cooperative "G"	Consumer and homemaking "F"	Total
Region 12—hazard:														
Breathitt County	7, 977	1, 007	1, 007										450	1, 457
Jackson	856												675	675
Knott County	8, 544												846	846
Lee County	3, 075	673	673							1, 266			584	2, 523
Leslie County	6, 027												393	393
Letcher county	8, 760	445			445								1, 135	1, 580
Jenkins	1, 765												210	210
Owsley County	3, 233	500	500							1, 978			700	3, 178
Perry County	9, 608	1, 891			1, 891					411			800	3, 102
Hazard	2, 646	475			475					1, 000			1, 160	2, 635
Wolfe County	13, 139	11, 332	11, 041	129		162				6, 444			1, 065	18, 841
Region totals	55, 630	16. 323	13, 221	129	2, 811	162				11, 099			8, 018	35, 440
Region 13—Harlan:														
Bell County	8, 635	4, 773	898	3, 875									1, 550	6, 323
Middlesboro	4, 639	4, 332		3, 039	1, 304							845	475	5, 652
Pineville	1, 063												494	494
Lay County	8, 597	4, 364	824	3, 540						8, 650		425	625	14, 064
Harlan County	12, 493	21, 443	2, 542	13, 286	5, 615					1, 568			2, 133	25, 144
Harlan	1, 951	4, 194		4, 194						2, 490			475	7, 159
Lynch	877												520	520
Jackson County	4, 796	2, 173	1, 354	819									1, 000	3, 173
Know County	10, 381	4, 059	1, 350	2, 709						2, 715			1, 168	7, 942
Barbourville	1, 045												405	405
Laurel County	9, 450	10, 420	3, 247	6, 800	373					5, 502	27, 048	1, 225	1, 655	45, 850
Rockcastle County	5, 358	2, 132	2, 132							5, 411	3, 137		942	11, 612
Whitley County	6, 144	8, 997	2, 214	4, 816	1, 967							660	565	10, 222
Corbin	2, 491	3, 220		1, 501	1, 710							1, 178	350	4, 748
Williamsburg	1, 115												325	325
Region totals	79, 165	70, 170	14, 561	44, 577	10, 969					26, 336	30, 175	4, 333	12, 682	143, 633
Region 14—Somerset:														
Adair County	4, 679	3, 811	3, 324	487						2, 500			773	7, 084
Casey County	5, 272	2, 562	2, 562							437			775	3, 772
Clinton County	3, 847	3, 607	3, 607							1, 371			1, 050	6, 028
Cumberland County	2, 935	1, 923	1, 923							1, 377			800	4, 100
Green County	3, 318	3, 003	1, 913		1, 090					14, 284			447	17, 734
McCreary County	5, 577	4, 927	1, 168	1, 839	1, 920					4, 765			1, 075	10, 767
Pulaski County	9, 264	8, 766	8, 064		702					1, 734			2, 885	13, 385

Somerset	3, 845	1, 029			1, 029					2, 292			500	3, 821
Russell County	4, 905	3, 839	1, 147	2, 268		424				4, 332			710	8, 881
Taylor County	3, 471	3, 141	995		2, 146					1, 645			650	5, 436
Campbellsville	2, 408	772			772					2, 395		400	480	4, 047
Wayne County	6, 231	13, 970	12, 860		1, 110					3, 069			794	17, 833
Monticello	1, 640									1, 503			625	2, 128
Region totals	56, 482	51, 350	37, 563	4, 594	8, 769	424				41, 705		400	11, 564	105, 018
Region 15—Lexington:														
Anderson County	2, 582	1, 525	1, 400	125									590	2, 115
Bourbon County	3, 351	14, 917	12, 911	2, 006						1, 845			463	17, 225
Paris	2, 318												100	100
Boyle County	3, 385	3, 755	2, 283	1, 472						8, 750		3, 315	475	16, 295
Danville	3, 705	3, 029			1, 055				1, 974	2, 890			261	6, 180
Clark County	7, 004	14, 400	3, 641	9, 495	1, 264								1, 350	15, 750
Estill County	4, 936	11, 236	2, 486	8, 240	510					1, 530			775	13, 541
Fayette County	47, 713	27, 896	1, 969	19, 204	6, 443	280				31, 552	29, 022		25, 394	113, 864
Franklin County	8, 366	5, 003	2, 073	2, 930									448	5, 451
Frankfort	1, 889	3, 500		3, 500						1, 103		385	100	5, 088
Garrard County	3, 165	1, 300	1, 300										974	2, 274
Harrison County	4, 345	2, 332	1, 500		750	82					10, 400		725	13, 457
Jessamine County	4, 505	3, 311	1, 378	1, 933									440	3, 751
Lincoln County	6, 726	15, 323	15, 323							902			1, 555	17, 780
Madison County	7, 016	3, 150	2, 785		365								500	3, 650
Berea	1, 174												575	575
Eastern Kentucky University													45	45
Richmond	2, 166												375	375
Mercer County	2, 213	1, 025	1, 025										445	1, 470
Burgin	560												472	472
Harrodsburg	1, 911													
Nicholas County	2, 155	1, 133	1, 133										1, 149	2, 282
Powell County	2, 887	2, 420	2, 420										1, 150	3, 570
Scott County	3, 703	4, 786	2, 572	2, 214						1, 865			348	6, 999
Georgetown	1, 410												613	613
Woodford County	3, 922	6, 893	1, 950	2, 343		168	2, 432			4, 770		1, 688	800	14, 149
Region totals	133, 107	126, 934	58, 149	53, 462	10, 387	530	2, 432		1, 974	55, 207	39, 422	5, 386	40, 122	267, 071
State totals	989, 906	898, 154	404, 387	318, 358	73, 875	7, 713	17, 708	74, 139	1, 974	541, 246	392, 494	80, 499	232, 264	2, 144, 657
Reserved for teachers attending national youth organization meeting		7, 335	2, 535	3, 000	1, 800									
Adjusted State totals	989, 906	905, 489	406, 922	321, 358	75, 675	7, 713	17, 708	74, 139	1, 974	541, 246	392, 494	80, 499	232, 264	2, 151, 992

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[1] Funds distributed to local school districts by use of the formula in the State plan represents only 20 percent of the "Part B" funds appropriated for programs, services, and activities (see p. 74 in this app).

[2] 6 percent used to pay for transportation of students to area vocational schools.

[3] 45 percent used to support programs, services, and activities for local educational agencies other than local school districts, on a project or school budget basis.

[4] 23 percent used to support ancillary services (11); construction (10): and vocational guidance (2).

LOUISIANA

State Director—Kirby K. Awagain

INTRODUCTION

Mr. Chairman and members of the General Subcommittee on Education: I deeply appreciate the opportunity of submitting a detailed report on the progress of vocational education in Louisiana and your invitation to make appropriate comments for improvements in federally supported vocational and manpower programs. Just 2 years ago, our State was afforded this same opportunity and we know that our report and comments were seriously reviewed and given due consideration. During these 2 years, much has occurred concerning occupational education, not only in our State but throughout the Nation. This situation perhaps further points out how rapidly vocational education is subject to change and redirection. There is little doubt that the Vocational Education Amendments of 1968, enacted by the Congress provided sweeping changes and broad new directions in vocational education programs. However, the full intent of Congress was not carried out in this legislation relative to authorized funding levels. Although the effects of the Vocational Education Amendments of 1968, have had an enormous impact in Louisiana, greater achievements would have been registered had the intent of the legislation been carried out at the national level.

The declaration of purpose as contained in Public Law 90–576 is paralleled in the broad goals and objectives of Louisiana's program of vocational education. Objectives which are reflective of the goals of the 1968 amendments are included in the Louisiana State plan for the administration of vocational education:

> The general objectives of vocational programs, services, and activities in Louisiana shall be to maintain, extend, and improve existing programs of vocational education so that persons of all ages in all communities of the State will have ready access to vocational training or re-training which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training.

Specifically, the following goals and objectives have formed the base upon which vocational education in Louisiana has developed and operated:

1. Vocational-technical education shall provide adequate and timely instruction in both preparatory and supplemental training which will reflect occupational trends and meet the changing needs of public requirements.
2. Vocational programs, services, and activities shall be supervised and directed by professionally qualified vocational education personnel.

3. Programs shall be implemented only after needs for such training have been established.

4. Instructional and supervisory staffs shall maintain proper coordination with industry and shall accept responsibility for the placement and followup of students.

5. The staff serving vocational-technical programs shall include competent support personnel responsible for and capable of insuring a sound program of vocational guidance, counseling, and other ancillary services.

6. Instructional facilities and equipment shall be comparable to those used in the occupations for which training is provided.

7. Continual study of vocational education innovations and issues shall be provided as a basis for initiating redirections, changes, and new approaches to create a bridge between school and earning a living.

8. Curriculum content shall be based on the skills and knowledge required in the occupation and will be developed and conducted in consultation with persons actively engaged in the occupations.

9. Evaluation shall be a vital part of programs, services, and activities to insure that objectives and goals are attained and that weaknesses, strengths, and outstanding features are documented.

10. An active State advisory council composed of persons from business, industry, education, management, labor, and other areas shall function in an advisory capacity to the State board of education.

11. There shall be an effective public information program relating to vocational education. Encouragement and involvement of community groups and individuals in the development and relationship of educational goals shall be emphasized.

12. Ancillary services relating to teacher education, both preservice and inservice preparation of personnel, shall be developed and maintained.

13. Youth organizations are recognized as an integral part of the instructional program in all areas of vocational education.

Impressive gains in enrollment over the 10-year period in vocational education is evidenced in table 1. Programs, services, and activities were offered in all recognized vocational areas—agriculture, distribution, health, home economics, office occupations, technical, and trades and industry. Also, ancillary services and activities were provided which include teacher education, curriculum development, administration and supervision, guidance and counseling, and research.

TABLE 1.—ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS BY LEVEL, STATE OF LOUISIANA

Level	1963	1968	1972	1977 (estimate)
Enrollees, total	92,379	154,823	176,387	204,246
Secondary	67,461	102,025	126,259	139,502
Postsecondary	1,309	15,306	19,375	32,535
Adult	23,609	36,313	30,753	32,209
Persons with special needs		1,179	1,374	
Disadvantaged			(69,050)	(72,520)
Handicapped			(1,163)	(2,805)

Note.—Enrollment data by program indicate both the expansions in specific areas as well as redirections which occurred

TABLE 2.—ENROLLMENTS IN VOCATIONAL EDUCATION BY PROGRAM, STATE OF LOUISIANA

Program	1963	1968	1972	1977 (estimate)
Total	92,379	154,823	176,387	204,246
Agriculture	20,084	17,407	19,398	20,562
Production		16,564	12,367	8,217
Off farm		843	7,031	12,345
Distribution	2,920	8,032	10,153	10,609
Health	1,437	2,925	4,547	4,802
Home economics	46,645	43,693	56,505	57,250
Useful		41,692	54,550	55.192
Gainful		2,001	1,955	2,058
Office		55,731	54,915	66,901
Technical	2,620	3.181	3.597	8,672
Trades Industry	18,673	23,854	27,272	35,450

During the years being reviewed, there was a continued expansion of vocational education opportunities; however, new directions were set in order to meet priority needs of the State. New programs were developed with noticeable change in basic vocational education programs. Population groups with special needs, such as the handicapped and disadvantaged, were given added emphasis as required by the Vocational Education Amendments of 1968. Additional priorities included the serving of persons in economically depressed areas of the State as well as cities and communities registering high youth unemployment and excessive school dropouts. Funds expended from Federal, State, and local sources in most cases were directed primarily toward the purposes of section 122(a) of the Public Law 90–576 with special programs and services provided for by appropriate authorizations of the act. Discretionary funds provided by the U.S. Commissioner of Education were responsible for carrying out limited, but very important and far-reaching exemplary and research projects.

PUBLIC LAW 90–576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

Major expenditures with corresponding enrollments were registered in part B areas. This included not only Federal expenditures, but State and local efforts as well. As an example, in 1972 approximately 80 percent of Federal expenditures were in part B. 102(a) State programs with a corresponding 76 percent of State and local expenditures in this area. Of the 176,387 persons enrolled in vocational education in the State in 1972, 115,800 or 65.7 percent were in part B programs. The diversity of purpose and flexibility of funding provisions have resulted in significant accomplishments in both the numbers of persons served and the types of vocational opportunities available throughout the State. Local and State efforts have contributed greatly to providing adequate resources. During the past year, for every $1 of Federal funds expended, $2.03 in State and local funds were provided.

a. Job Training Enrollments

Following are data relating to job training enrollments by job training area and by high school, posthigh school, and adult for fiscal years 1963, 1968, 1972, and 1977 (estimated). In order to present the information in summary form and to conserve space, major vocational areas rather than specific occupations are shown.

TABLE 3.—JOB TRAINING ENROLLMENTS, PART B—STATE VOCATIONAL EDUCATION PROGRAMS, STATE OF LOUISIANA, SECONDARY LEVEL

Job training area	1963	1968	1972	1977 (estimate)
Total	25,006	61,446	71,938	84,539
Agriculture	15,417	14,147	17,864	18,280
Production		13,304	11,578	9,578
Off farm		843	6,286	8,702
Distribution	911	1,948	3,549	3,910
Health		44	251	300
Home economics gainful		376	1,051	1,110
Office		43,025	43,239	53,934
Technical	[1] 1,454	26	24	75
Trades/Industry	[1] 7,224	1,880	5,960	6,930

[1] Reported in error on original report.

TABLE 4.—JOB TRAINING ENROLLMENTS, PART B—STATE VOCATIONAL EDUCATION PROGRAMS, STATE OF LOUISIANA, POSTSECONDARY LEVEL

Job training area	1963	1968	1972	1977 (estimate)
Total	1,309	15,306	19,375	32,535
Agriculture	0	0	0	0
Production				
Off farm				
Distribution		91	125	175
Health	1,057	1,414	1,918	2,000
Home economics gainful		143	288	308
Office		5,606	5,921	7,015
Technical	[1] 252	1,689	2,596	7,597
Trades/Industry	(1)	6,363	8,527	15,440

[1] Postsecondary enrollments were reported in error as secondary as noted in table 3.

TABLE 5.—JOB TRAINING ENROLLMENTS, PART B—STATE VOCATIONAL EDUCATION PROGRAMS, STATE OF LOUISIANA, ADULT LEVEL

Job training area	1963	1968	1972	1977 (estimate)
Total	19,523	35,200	29,533	30,889
Agriculture	4,667	+3,260	1,527	2,191
Production	4,667	3,260	789	1,050
Off farm			738	1,141
Distribution	2,009	5,590	5,999	6,149
Health	380	1,313	2,378	2,502
Home economics gainful	104	1,354	579	600
Office		6,972	5,342	5,452
Technical	914	1,458	977	1,000
Trades/Industry	11,449	15,253	12,731	12,995

b. General Description

Data reflects an increase of enrollments from 1963 to 1972 with projections showing an increase in 1977. There has been the concerted effort to correlate program offerings with manpower needs and projections in the State.

Without question, the availability of Federal funds provided the impetus in the development of new programs and the expansion of existing ones. Legislative restrictions of Public Law 90–576 mandated certain changes which resulted in the reestablishment of priorities especially as related to special groups of persons to be served.

There has been an expansion of courses in new job fields as well as the initiation of new courses. As an example, courses were established to give students, both youth and adults, specialized training in many agri-related careers, such as: wildlife and recreation, forestry and soil conservation, ornamental horticulture, and farm machinery sales and services. International trade, recreation, and tourism and preparation for employment in the retail trade have been the major adult distributive education thrust since 1968. Efforts to assist the large foreign born group in the New Orleans metropolitan area to gain marketable skills in distribution have been emphasized since 1968. Occupational programs have expanded greatly in food service, care and guidance of children, home nursing, fashion merchandising, and visiting homemaker service. New courses in geriatric nursing care, intensive coronary nursing care, hospital housekeeping aides, and medical-surgical nursing were instituted.

The followup reports on students completing courses reveal exceptional success in employment in the areas trained.

c. Postsecondary Courses

Table 4 indicates the enrollment by job training area on the postsecondary level. A review of 1963 enrollment data reveals figures which may be misleading as they were not categorized as they should have been. However, large gains were noted over the 10-year period with 32,535 expected to be enrolled by 1977.

Postsecondary training was conducted primarily in 32 vocational-technical schools; 31 of these schools are designated as area vocational schools. The entire State, through its system of area-designated schools, is served by State-supported area vocational schools. Interest in postsecondary programs throughout the State has shown continued support. The image of postsecondary vocational schools in Louisiana has improved considerably during the past several years and additional programs and opportunities have been made available to both youth and adults who enter these schools in increasing numbers.

Major program postsecondary offerings by area schools are shown in table 6.

Table 6

PROGRAMS OFFERED IN STATE
VOCATIONAL-TECHNICAL SCHOOLS
State of Louisiana

33. Morgan City (Young Memorial)	32. Plaquemine (Westside)	31. New Iberia (Teche Area)	30. Opelousas (T. H. Harris)	29. Bogalusa (Sullivan)	28. Lake Charles (Sowela)	27. Crowley (Southwest Louisiana)	26. Houma (South Louisiana)	25. Shreveport (Shreveport-Bossier)	24. Many (Sabine Valley)	23. West Monroe (Ouachita Valley)	22. New Orleans (Orleans Area)	21. Opelousas	20. Minden (Northwest Louisiana)	19. Winnsboro (Northeast Louisiana)	18. Farmerville (North Central)	17. Natchitoches	16. New Roads (Memorial Area)	15. Metairie (Jefferson)	14. Jennings (Jefferson Davis)	13. Winnfield (Huey P. Long Memorial	12. Hammond	11. Abbeville (Gulf Area)	10. Greensburg (Florida Parishes)	9. St. Martinville (Evangeline Area)	8. Monroe (Delta Area)	7. New Orleans (Delgado)	6. Ferriday (Concordia Area)	5. Natchitoches (Central Area)	4. Baton Rouge (Capital Area)	3. Ringgold (Bienville)	2. Baton Rouge	1. Alexandria	
																										■							Aeronautical Technology
			■	■		■		■		■						■		■				■		■		■					■		Air Conditioning and Refrigeration Mechanic
					■																					■							Aircraft Maintenance
						■		■								■						■				■						■	Applicance Repairman
																										■							Architectural Technology
			■			■		■				■						■						■	■								Auto Body and Fender Repair
	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			■	■	Auto Mechanics
								■																									Barbering
		■									■															■							Carpentry
			■																							■							Civil Engineering Technician
																										■							Commercial Art
											■															■			■				Commercial Cooking
											■	■																■	■				Cosmetology
			■	■														■				■				■							Data Processing
■		■	■			■		■														■				■							Diesel Mechanics
				■																												■	Distributive Education
■		■		■	■	■	■	■	■				■	■		■		■	■		■	■				■					■	■	Draftsman
			■			■										■										■							Electrician
■		■		■			■	■		■	■		■					■				■				■		■					Electronics Communications
		■	■	■	■					■					■						■				■	■					■		Electronics Technology
																										■							Engineering Technician,Related
			■			■																		■				■					Farm Mechanics
																		■															Food Service Management
																								■									Homemaker Aide
■					■	■	■											■															Industrial Engines
													■													■					■		Instrumentation Technology
																■										■							Jewelry Repair
■			■	■	■	■		■		■						■			■							■					■	■	Machinist
																										■							Marine Diesel Mechanic
																										■							Mechanical Technology
																										■							Millwork and Cabinet Making
			■																														Non-Destructive Testing
			■																														Nursing Aide
										■						■																	Office Machine Repair
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Office Occupations
																										■							Painting and Decorating
																										■							Petroleum Technology
			■																							■							Plumbing
■	■	■	■	■	■	■	■	■	■	■	■				■	■		■			■	■			■				■		■	■	Practical Nursing
■		■		■	■	■			■	■		■	■			■						■		■	■			■	■				Prevocational
	■	■		■	■	■		■	■			■		■	■									■		■						■	Radio-Television Service Repairman
				■		■		■																		■							Safety Engineering Technician
								■			■															■							Sheet Metal Worker
■																																	Ship and Boat Operation and Maintenance
						■		■																									Small Engine Repair
										■																							Television Studio Technician
								■																				■					Upholsterer, Furniture
																■																	Watchmaking
■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	■	■	■	■	■	■	■		■	■		■		■	■	Welding

Postsecondary enrollments by types of institutions in the State are shown in table 7. It can be easily seen that enrollment in area vocational schools has registered significant increases.

TABLE 7.—ENROLLMENTS BY TYPE OF POSTSECONDARY INSTITUTIONS, PART B—STATE VOCATIONAL EDUCATION PROGRAMS, STATE OF LOUISIANA

Type of institution	1963	1968	1972	1977 (estimate)
Junior and community colleges	0	4, 186	4, 866	5, 250
Other postsecondary institutions	0	0	400	600
Area vocational schools	1, 309	11, 120	14, 109	26, 685
Total	1, 309	15, 306	19, 375	32, 535

d. Disadvantaged Students

Although vocational education programs and activities in the State have always served all students—both regular and disadvantaged—provisions of the Vocational Education Act of 1963, as amended, mandated that certain funds be used only for disadvantaged persons. Consequently, reporting records prior to 1968 do not reveal the efforts which were exerted in providing training opportunities for the disadvantaged.

Among the persons served in this category have been potential high school dropouts, disinterested students, those with low aspirations, and those who are culturally deprived and academically deficient. Many of the disadvantaged persons were served in regular vocational education programs which had been modified to compensate for deficiencies preventing success in these regular classes. In addition, special classes were operated which served disadvantaged persons in a wide range of occupational offerings. Since 1963, great efforts have been made to insure that disadvantaged students are adequately served by the State's vocational education programs. Table 8 provides enrollment of disadvantaged students in both regular and special programs.

TABLE 8.—DISADVANTAGED STUDENTS IN REGULAR AND SPECIAL PROGRAMS, STATE OF LOUISIANA

Type of program	1963	1968	1972	1977 (estimate)
Regular	(1)	(1)	63, 625	65, 020
Special	(1)	1, 179	5, 425	7, 500
Total		1, 179	69, 050	72, 520

[1] Not available.

Programs for disadvantaged students were conducted in all vocational areas. Classes for disadvantaged students were conducted in correctional institutions, seconary schools, and postsecondary institutions. There is evidence that educators throughout the State have continued to show greater concern for providing instructional services at all levels to disadvantaged students.

Completion rates registered by disadvantaged students have been outstanding and followup studies have shown that successful employment was achieved. It is expected that a continued emphasis on serving disadvantaged persons shall be evidenced.

e. Handicapped Students

The provisions of the Vocational Education Amendments of 1968 brought forth the development of programs for the handicapped in the State's vocational education plan. Although a limited number of handicapped students were being served, the required 10-percent set-aside of part B funds for this purpose necessitated the initiation of special vocational programs and services for handicapped students. There were 1,163 handicapped students enrolled in 1972 with projections for 1977 to reach 2,805. It should be noted that all enrollment of handicapped persons is in special classes. Primarily, special education programs and services for the educational mentally retarded and students with learning disabilities have been provided. Prevocational orientation programs, remedial instruction, and instruction through special education equipment, services, and devices have been implemented.

The concern for Louisian's handicapped population is reflected in the State plan for the administration of vocational education. Program planning and available financial resources have been committed to providing occupational experience for the handicapped. Also, students with handicaps who are completing vocational education programs are finding many employment opportunities. Followup studies on handicapped students also reveal that these persons are considered excellent workers.

Handicapped enrollments by vocational education programs are shown in table 9.

TABLE 9.—HANDICAPPED STUDENTS IN SPECIAL PROGRAMS, STATE OF LOUISIANA

Program	1963	1968	1972	1977 (estimate)
Agriculture	[1]	[1]	115	250
Distribution	[1]	[1]	0	500
Home economics (wage earning)	[1]	[1]	80	113
Office occupations	[1]	[1]	170	550
Trades and industry	[1]	[1]	798	1,392
Total			1,163	2,805

[1] Not available.

f. Adults

Louisiana has provided extensive vocational education opportunities for adults in both preparatory and supplemental programs. Enrollment increased from 23,609 in 1963 to 30,753 in 1972 and is expected to reach 32,209 by 1977.

Vocational education programs for adults who have entered the labor market but for various reasons are unemployed and in need of job training find educational opportunities at both city/parish school school systems and in the area vocational-technical schools. Evening and part-time classes, as well as day preparatory programs, are offered in a wide range of occupational areas. Preparatory classes in which adults have been rolled virtually have included all vocational fields. There has been a very high degree of success in placing adults after program completion and completion rates have been impressive.

Table 10 indicates the number of adults in preparatory classes for the 10-year period.

TABLE 10.—ADULT ENROLLMENT PREPARATORY CLASSES BY PROGRAM AREA, STATE OF LOUISIANA

Program	1963	1968	1972	1977 (estimate)
Agriculture	3,434	1,213	536	758
Distribution		1,587	2,061	2,124
Health		1,028	988	1,052
Home economics gainful		367	211	260
Office occupations		1,949	993	1,092
Technical		330	305	310
Trades and Industry		2,190	3,567	3,785
Total	3,434	8,664	8,661	9,381

The number of adults served in supplemental classes has far exceeded those in preparatory classes. Traditionally, under previous Federal acts only supplemental classes were authorized and programs in the State were developed accordingly. Apprenticeship classes have accounted for a large number of enrollees, although service occupations in office and distribution have shown large enrollments in recent years. Businesses and industries in Louisiana have depended heavily upon vocational education to provide their employees with the necessary upgrade or supplemental training. As shown in Table 11, adult enrollment has increased moderately from 20,175 in 1963 to 22,092 in 1972. Enrollment in this category is contingent upon the work force level in the State. Both short term and comprehensive programs have been conducted in all vocational and occupational areas. Enrollments in vocational education adult programs have exceeded those supported with Federal manpower funds.

TABLE 11.—ADULT ENROLLMENT SUPPLEMENTARY CLASSES BY PROGRAM AREA, STATE OF LOUSIANA

Program	1963	1968	1972	1977 (estimate)
Agriculture	1,233	2,047	991	1,433
Distribution	2,009	4,003	3,938	4,025
Health	4,190	285	1,390	1,450
Home economics:				
Useful	380	1,113	1,220	1,320
Gainful		987	368	340
Office occupations		5,023	4,349	4,360
Technical	914	1,128	672	690
Trades and industry	11,449	13,063	9,164	9,210
Total	20,175	27,649	22,092	22,828

g. Financing

(i) The distribution of Federal funds under part B of Public Law 90–576 is in accordance with sections 3.26 and 3.27 of the State plan for the administration of vocational education. The relative priorities for funding local applications are based on criteria relating to manpower needs, job opportunities, vocational education needs of population groups, and relative ability to pay. Applications from city and parish school systems are reviewed by the staff in the Bureau of Vocational Education and rating factors are assigned based on 22 specific criteria. Each application is adjusted by weighted factors in the formula procedure to insure that criteria established have an effect upon funds provided. The vocational education enrollments for each school system in part B programs are then applied as a component of the weighted formula to provide equitable consideration based on the number of students served in vocational programs. Distribution of funds to city and parish school systems is predicated upon the resulting formulas.

The area vocational-technical schools, colleges, and special schools directly under the administration of the State board, which are not supported by local tax revenues and which receive direct appropriations from the State legislature, are funded on the basis of specific programs and are not under the formula requirements as indicated above.

Relative ability to provide resources by city/parish school systems is taken into consideration in the determining of funding levels. This criteria is applied in the application review and the assignment of weighted factors. However, since the State distributes State funds on an equalization formula for school support, this is a built-in feature for financial support for elementary and secondary schools in Louisiana. This factor does not apply to institutions which receive direct support from the State legislature.

The differences in costs among school systems in the State are minimum and have not presented any problems in major fund reallocations for this purpose. However, this factor is one of the four major criteria for the assessing of priorities for funding applications.

As the matching provisions under part B are not by purpose or by program or by school system, statewide matching permits greater flexibility in meeting priority needs. This has especially been the case in rural or economic depressed areas of the State.

Funds distributed to school systems have tracked very closely the population levels of districts receiving these moneys. This is related to the formula for the distribution of funds, whereby student enrollment is a factor used in assigning weights to allocations for each school system in the State. However, it should be noted that rural and economic depressed areas, where per capita income is lower than the State average, there is a built-in feature in the formula which provides additional consideration for these factors. Consequently, these geographic areas receive a slightly higher distribution of funds relative to the population of the area based on the total population of the State.

(ii) Comparative data for 1972 show the relative percentage of population and allocation of funds for Orleans Parish (city exceeding 250,000) and for five rural and economic depressed parishes of the State. The population of New Orleans is 15.9 percent of the State's total; however, 7.5 percent of the State's part B funds were allocated to this area. The reason for the disparity results from program designation whereby a larger percentage of the State's disadvantaged funds, Section 102(b), are distributed to Orleans Parish. In 1972, an additional $205,433 in disadvantaged funds, section 102(b) was expended in New Orleans. Had these funds been added to the basic part B allocation, the percentage would have amounted to 9.8.

The relative percentage of population for the five economic depressed parishes ranges between 0.3 percent and 0.4 percent. The allocation of part B Federal funds distributed to these districts ranges between 0.3 percent and 0.7 percent. It should be further noted that State funds distributed are in addition to the Federal expenditures. It can generally be said that should this same comparative analysis be made for all systems throughout the State that there would be close correlation between relative population and the distribution of vocational education funds.

TABLE 12.—RELATIVE PERCENT OF POPULATION AND ALLOCATION OF FUNDS, STATE OF LOUISIANA, 1972

	Population	State population	Percent of total population	Federal funds		State funds	
				Allocation	Percent of total	Allocation	Percent of total
A. New Orleans[1]	534, 471	3, 737, 316	15. 9	$662, 151	7. 5	$47, 748	2. 1
B. Economic depressed areas:[2]							
Caldwell Parish	9, 354	3, 737, 316	. 3	23, 847	. 3	3, 349	. 2
Grant Parish	13, 671		. 4	63, 983	. 7	6, 786	. 3
St. Helena Parish	9, 937		. 3	57, 067	. 6	16, 613	. 7
Tensas Parish	9, 732		. 3	24, 414	. 3	2, 225	. 1
West Feliciana Parish	11, 376		. 3	33, 763	. 4	3, 363	. 2

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[1] Cities in excess of 250,000.

[2] Rural and economic depressed areas.

h. Construction and Equipment

During the past 10 years priorities have not included the use of Federal funds for the construction and initial equipping of area vocational-technical schools. This position of the State board of education was the result of the fact that Louisiana has for several years maintained a system of 31 State-supported vocational-technical schools. Also, a higher priority was established for the utilization of funds for the maintenance and expansion of existing programs and the development of new vocational education opportunities. With the exception of one project funded with part B vocational education moneys, construction has been provided from State and local revenues. It should also be noted that as this report is being prepared a $54 million bond issue has been introduced into the Louisiana State Legislature for the purpose of upgrading, expanding, and establishing new vocational-technical schools into a cohesive statewide system of postsecondary vocational-technical education.

Public Law 90–576—Other Federal Programs

In addition to part B provisions, special program areas have provided many opportunities both instructional and related which have improved and have given added impetus to vocational education in Louisiana. A brief description with accompanying data will be presented in each of the major areas.

a. Exemplary Programs and Projects

The first exemplary projects in the State under the Vocational Education Amendments of 1968 were funded in 1969. By 1972 three projects which had incorporated the new thrusts in career education and bridge-building efforts between research and actual school settings were approved and implemented. These projects all had high probability of success and are currently proving to be successful.

The projects approved in 1972 with supporting data are described below. It should be noted that there were no such exemplary activities in 1968.

Exemplary project	Number of students	Dis-advantaged	Handicapped
1. Career development of youth for the world of work To provide students in grades 7, 8, and 9 those experiences and knowledges that will aid them in making appropriate educational and occupational choices in the future. The program for the 7th and 8th grades will be career oriented.	600	(400)	(65)
2. An orientation program for vocational education To prepare the students to make an oppropirate career selection and make students aware of opportunities available.	53	(10)	
3. Enrichment program for learning and study skills To develop a system through enrichment in learning and study skills that will help vocational students to experience techniques of success through positive self-concept that can be transferred to other learnings.	41,446	(5,186)	(1,036)

In 1977 it is anticipated that three additional exemplary programs will be approved and funded contingent upon the availability of Federal funds. Approximately 1,000 students will be served in the proposed projects.

The benefits to the State of Louisiana from the exemplary projects have begun to be realized. As the career education concept is currently being implemented in the State, considerable experiences and knowledge gained from the projects are being utilized.

b. Residential Vocational Education

Residential vocational centers have not been developed in the State due in a large measure to the lack of adequate funds. Local and State funds have not been available for this purpose and since part E of Public Law 90-576 has not been funded, financial support has not been available for this purpose.

There is a need for residential vocational centers. However, it is felt that one model center should be developed with the possibility of utilizing existing available facilities before any large-scale program is developed.

c. Consumer and Homemaking

In the past 10 years home economics programs have grown in Louisiana to meet the demands and needs of homemakers and wage earners through the preparation of women to meet the dual role of working outside the home and continuing with the function of homemaker. Programs have been designed, initiated and implemented in the secondary and postsecondary schools in job training in specific areas such as child care, food service, and commercial sewing. In the consumer and homemaking areas program emphasis has been changed to improve students in the development of attitudes, decisionmaking, and the providing of opportunities in self development.

Consumer education components of the homemaking program at the secondary level have been specifically designed for disadvantaged students in economically depressed areas. Some of the activities of the instruction for disadvantaged students have included: (1) budgeting the food and clothing dollar, (2) self-improvement and good grooming, (3) comparing prices and recognizing quality goods, and (4) understanding the use and availability of credit. There have been directed home experiences and visits to homes of students living in economically depressed areas to understand the basic needs better and to strengthen program objectives. Table 13 reveals that enrollments in both consumer homemaking and occupational home economics have increased significantly during the 10-year period. It is important to note that 23,259 disadvantaged students were served in 1972 in part F programs while 920 disadvantaged students were enrolled in occupational classes. By 1977, there are expected to be enrolled 56,942 students in home economics. There is a great need for continued financial support for this vocational program area.

TABLE 13.—CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS, STATE OF LOUISIANA

	1963 vocational home economics	1968		1972						1977 (estimate)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics			Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	42,455	40,579	376	53,330	23,040	0	1,088	720	80	53,872	23,240	0	1,150	940	120
Adult	4,190	1,113	1,354	1,220	219	0	579	400		1,320	450	0	600	525	0
Total	46,645	41,692	1,730	54,550	23,259	0	1,667	1,120	80	55,192	23,690	0	1,750	1,465	120

d. Cooperative Vocational Education

Prior to 1970 all cooperative programs were funded under part B. Since that date new cooperative part G programs were established in 25 school systems which represented 49 programs. These 49 cooperative programs were inaugurated in 41 high schools in areas serving high concentrations of youth unemployment and where school dropout rates exceeded the State average. The 49 cooperative programs represented 31 in office occupations, 12 in distributive, 2 in home economics, 3 in agriculture, and 1 in trade and industrial education.

The following data include only part G enrollment:

Year:	Enrollment
1963	0
1968	0
1972	991
1977 (estimate)	1,600

Funding under part G of Public Law 90-576 enabled more school systems to initiate cooperative education programs that would otherwise not have been possible. Evaluations of these programs through the followup of completions indicate that a high percentage of students are successfully employed, many of whom remain as permanent employees of companies participating in the on-the-job training. All indications point to an increase in the need and development of cooperative programs.

e. Work-Study Programs

Since 1965 Louisiana has participated in vocational education work-study programs in which many students were provided financial assistance to continue their education on a full-time basis.

The work-study program has been conducted in both the parish/city school systems and area vocational-technical schools.

The limitation of Federal and State funds available resulted in a smaller number of students participating than there was a need for. As an example, in 1972 only 3.91 percent of vocational students enrolled in postsecondary schools participated while less than 2 percent of the secondary vocational students were involved.

Priority has been given to applications for programs in school systems located in areas of high youth unemployment. As a result, data revealed that 88.6 percent of the students participating in the postsecondary program and 56.3 percent of the students in the secondary program were enrolled in school systems located in areas of high youth unemployment. Also, 50.4 percent of the post-secondary students were enrolled in schools located in areas of high dropout rates, while 56.3 percent of the secondary students were enrolled in schools located in the same target area. The percentage of disadvantaged participating in the work-study program was 58.4 percent while 1.6 percent of the students were handicapped.

The following data represent work-study enrollment:

Year:	Enrollment
1963	0
1968	1,002
1972	995
1977 (estimate)	1,365

Continuation of funds for work-study programs will insure that needy students will have an opportunity to continue or commence their vocational education and thus help alleviate school dropouts and youth unemployment.

When the Federal funding level is compared to the college work-study program and the number of students to be served, it is obvious that there is not equitable treatment being given to vocational education.

f. Research and Training

Research efforts utilizing part C funds have been very successful and have provided valuable assistance to the total State program in vocational education.

The research coordinating unit was initiated in the Louisiana State Department of Education in August, 1966, from a grant received from the Vocational Education Act of 1963. This was the first instance that a research component in vocational education had ever been provided. This unit has been a very viable and important part of the State vocational education program and has performed outstanding ancillary services.

Functions have included the serving as the coordinating center for the planning and development of programs of vocational education research in the State. The Research Coordinating Unit has worked cooperatively with local, State, Federal, and private agencies in surveying available data on manpower needs, employment opportunities, changes in the labor market, and occupational requirements as a base for planning effective vocational education programs. Evaluative instruments have been developed for measuring the effectiveness of vocational education programs which provide a basis for planning and redirection to assure quality programs. A recent activity involved the collection, compilation, and analysis of data on feasibility studies for the establishment and/or expansion of vocational-technical schools in 29 parishes or areas of the State.

Research programs and projects have been developed by local educational agencies and with 90 percent of the cost supported with Federal part C funds. Priorities have been given to experimental, developmental, and/or pilot programs for disadvantaged students and for career-oriented models. These projects have been most successful in the development of demonstration projects that have had transportability to other school systems in the State. Projects approved and funded by the U.S. Commissioner of Education have also been very successful in Louisiana. The career education models which have been developed have received much praise by educators from throughout the State.

Following is a brief description of 2 outstanding research projects funded under part C in Louisiana:

(1) "A Demonstration Project for Occupational Orientation of Students in Grades 7 Through 12 Attending Schools in Grant and Winn Parishes"

A certified and qualified vocational guidance counselor makes regularly scheduled visits to each of the 12 schools in Grant and Winn Parishes. Students in the schools of these rural parishes are tested for aptitude and interests in career opportunities. They are able to explore vocational areas of interest through materials housed in a mobile van. The vocational counselor works with other counselors, vocational teachers and personnel of the schools to provide up-to-date information on career opportunities.

(2) A Demonstration Project for Occupational Orientation of Students in Grades 8, 9, and 10 Attending Lafayette Parish Schools

In an effort to overcome a lack of awareness on the students' part of the importance of occupational choices available in the world of work, the Lafayette Parish School Board conducted a demonstration program to give eighth, ninth, and tenth grade students the necessary understanding and skills of various trades.

An eight subject area was developed with the aid and cooperation of business, construction, industrial and educational leaders. Actual on-the-job observation of these trades correlated with classroom instruction.

This project has been so successful the local school board will continue the program after the termination of the grant.

STATE ADVISORY COUNCIL

The Louisiana State Advisory Council for Vocational and Technical Education has made significant contributions to the vocational education program in the State.

Through its annual evaluation report, the advisory council has been instrumental in giving impetus to changes needed and warranted to strengthen the vocational education program.

The council has served in preliminary review of exemplary programs and projects, research projects, and some members serve as liaison with the State legislature.

Expanded instructional and ancillary services are in part a result of the active participation of the members of subcommittees on vocational education service areas.

The requirement of the various categories that members must represent resulted in a wide range of expertise, knowledge, and services that otherwise would not have been readily available to vocational education in the State.

The majority of recommendations made by the State Advisory Council have necessitated State Board of Education action or action by the State Legislature, such as teacher certification and changes in the minimum foundation program to include guidance counselors.

Of significant value were a recommendation made by the Advisory Council in its 1972 Annual Report for a State-wide system of postsecondary vocational-technical schools to insure greater articulation between secondary, postsecondary schools and institutions of higher learning.

These recommendations were accepted and incorporated into the State plan for career education which was approved by the State Board of Education and, if approved by the State Legislature, will result in a $50.8 million bonding legislation for a system of postsecondary vocational-technical schools.

The Bureau of Vocational Education was responsive to the recommendation of the Advisory Council that area vocational-technical schools enter into a program of self-study and a majority of the schools affiliating with the Southern Association of Colleges and Schools Commission on occupational education which will lead to eventual accreditation.

SUMMARY AND RECOMMENDATIONS

Programs in vocational education have made significant contributions to Louisiana's total educational program during the last 10 years. The Vocational Act of 1963 and the Vocational Education Amendments of 1968 broadened existing programs and gave new directions and change to the basic educational patterns of the past. Opportunities were expanded for the disadvantaged and the handicapped were specifically provided for in vocational education for the first time. Exemplary projects under part D and part C research and demonstration efforts gave vocational educators the opportunities to develop new and innovative programs, activities, and services. The impact of occupational skill training upon the State's economy as this relates to meeting skilled manpower shortages and the effects of vocationally-trained persons as an inducement for the establishment of new industries has been indeed far reaching. Statistics alone cannot describe or portray the self satisfaction and achievement of many citizens of Louisiana who through vocational-education, as a last hope in many cases, gained the necessary occupational competencies to provide a living for themselves and families. Our files are filled with countless letters and testimony from people throughout the State expressing their appreciation of what vocational education has meant for them. For many vocational education has given them the first opportunity they have had to acquire a job. Without vocational education in our State, public assistance and welfare recipients would undoubtedly increase significantly. Human resources must continue to be developed to the fullest, otherwise our State and Nation cannot continue to be economically sound.

Changes in our society and how we make a living have resulted in the emergence of vocational education as an important component of public education throughout the nation and in our State. The nature of society and the characteristics of work have changed and in recent years there has developed the interdependency of work and education. The uneducated person as well as the educated person who has not learned to work will experience difficulties in finding a meaningful place in the world of work. Work affects in many ways the social, cultural, civic, and personal relationships of individuals. An occupation sets the standard of living; it influences family relationships, and affects the economic and social aspects of individual and family living. Education certainly is an important factor in the providing of solutions to problems in our society. It follows, therefore, that vocational education opportunities must be provided for all persons in Louisiana who have a desire and need for such.

Suggestions for improving Federal law and administration of vocational education programs include:

1. As vocational education planning at both the State and local levels is based upon budget requirements and sources of funds, Federal legislation should so be structured that advanced funding be made available to the State prior to the beginning of the fiscal year. Such legislation should also include the amounts which the States can expect to receive. If notification of funding is not received such as the case of the current year, planning and prudent utilization of financial resources is weakened.

2. Strong vocational education leadership at the Federal level is important in achieving total objectives in providing quality vocational education for the youth and adults of this nation. Priorities need be given to an adequate staff of vocational educators who possess the necessary training and experience in vocational education in the areas of their major responsibilities. Additional staffing in U.S. Office of Education regional offices must be provided. Our State depends heavily upon the excellent assistance rendered by the regional office; however, if staffs were increased, additional assistance could be given our State.

3. Full funding as authorized by the Vocational Education Amendments of 1968 has never been appropriated. Appropriations should be compatible to authorizations, otherwise false hopes are built upon funding levels which never materialize. Further, part E which provides for residential vocational education facilities has never been funded.

4. Although State-wide matching is now permissible in the basic grant programs and is a decided improvement over the matching by purpose as required by the Vocational Education Act of 1963, consideration should be given to reducing State and local matching requirements for parts of the Vocational Education Amendments of 1968. This is not to suggest that parts of the act which do not require State or local matching funds be changed.

5. The level of funding authorized for parts of the Vocational Education Amendments of 1968 should be compatible with the needs of the specific programs as determined by the State. This can best be accomplished by Federal appropriations at the present or increased funding level in the form of a basic grant to the States with each State determining the amount of funding for parts of the Act based upon the State's priority needs.

6. The State plan provisions presently require considerable time and effort in the following of Federal guidelines. However, much of the plan is irrelevant in terms of the State's objectives, plans, and programs. It is felt that a State plan for vocational education is highly desirable, but that such plan should be flexible, simple in content, and better express the goals and objectives of the State.

The Better Schools Act of 1973 recently introduced by the administration contains provisions which are of great concern to vocational education. This educational revenue sharing would repeal existing vocational education legislation which has proven to be effective in providing our citizens with meanngful skills. We support categorical funding for vocational education instead of revenue sharing. Vocational education must serve all persons, not only disadvantaged youth in elementary and secondary schools as the Better Schools Act implies based on the State's share of funds determined by persons aged 5 through 17. Also, assurance must be provided that vocational education programs will continue to be administered through appropriate State designated agencies which is not the case in the Act in question. Vocational education priorities have been divided among priorities which are inconsistent with the educational needs of the individual states. Funds for vocational education would be in constant jeopardy with the distinct possibility of vocational education ceasing to carry out its purposes and serve the population for which it has responsibilities.

MAINE

State Director—Elwood A. Padham

INTRODUCTION

Maine is a rural state as large as the other five New England states combined. It has a population density of 27 persons per square mile, with approximately 1 million persons living in an area of 33,000 square miles.

Prior to the passage of the Vocational Education Act of 1963, less than one-third of the public high schools and less than one-fourth of the private high schools offered any type of vocational preparation for the youth of Maine. In 1962, only one high school offered a program of distributive education and only 13 high schools offered programs in trade and industrial education. Fourteen students were enrolled in distributive education; 517 in trade and industrial education education; 1,101 in vocational agriculture; and 3,935 in vocational home economics. In 1962 one postsecondary vocational-technical institute was founded and in operation; 360 students were enrolled in eight programs, such as automotives, building construction, etc.

All of Maine's programs of vocational education were funded from the following sources: State funds, $260,000; local funds, $272,000; Federal funds, $280,000; or approximately $820,000 was available for vocational education. It was very evident in 1962 that on the basis of comparison with other States Maine was far behind in promoting and supporting vocational education for high school, post high school and adult classes.

After the passage of the Vocational Education Act of 1963, and the Vocational Education Amendments of 1968 the Federal Government poured millions of dollars into the arteries of the vocational education system. Maine hopes that this massive infusion is only the beginning. The Act and the Amendments motivated Maine to increase its own contribution so that the total expenditures for vocational education have expanded greatly. The number of students enrolled in vocationally approved courses offered in 149 Maine secondary schools during the 1971–72 school year, not including the regional technical vocational centers, was 13,119; 6,500 students were enrolled in regional technical vocational centers, and it was costing the Federal, State and local systems approximately $6,600,000 to operate these programs.

It is our belief that Maine has certainly extended itself over the past 10 years to make vocational education opportunities available to persons who need and want this type of education.

PUBLIC LAW 90–576—"PART B-STATE VOCATIONAL EDUCATION PROGRAMS"

a. Job Training Enrollments

[See attached enrollment forms:]

OE-4046 (5/63)
(Formerly DVE 553)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON 25, D.C.

BUDGET BUREAU NO. 51-R155.1
APPROVAL EXPIRES 3/15/64

NUMBER OF PUBLIC SCHOOLS OFFERING VOCATIONAL-TECHNICAL EDUCATION PROGRAMS

(Smith-Hughes, George Barden)

READ INSTRUCTIONS ON BACK BEFORE COMPLETING

STATE/TERRITORY	FISCAL YEAR ENDING	DATE
MAINE	JUNE 30, 19 63	Sept. 1963

VOCATIONAL - TECHNICAL						NUMBER OF PUBLIC SCHOOLS BY TYPE							
						SECONDARY				POST-SECONDARY			SECONDARY & POST-SECONDARY *
						AREA		OTHER (Excl. Area)					
						REGULAR	VOC. AND/OR TECHNI.	REGULAR	VOC. AND/OR TECHNI.	TECHNICAL INSTITUTE	COMMUNITY OR JUNIOR COLLEGE	OTHER (Include 4 year College)	VOCATIONAL AND/OR TECHNICAL
(1)						(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	AGRICULTURE	A	Preparatory	(1)	DAY SCHOOL			26					
		B	Supplementary	(1)	ADULT FARMER			6					
				(2)	YOUNG FARMER								
2	DISTRIBUTION	A	Supplementary	(1)	COOPERATIVE			1					
				(2)	ADULT								
3	HOME ECONOMICS	A	Preparatory	(1)	DAY SCHOOL			58					
		B	Supplementary	(1)	ADULT			6					
4	OFFICE	A	Preparatory	(1)	DAY SCHOOL								
				(2)	ADULT								
		B	Cooperative										
		C	Supplementary										
5	TRADES AND INDUSTRY	A	Preparatory	(1)	TYPE A & B (Day school)			9		1			
				(2)	TYPE C								
		B	Supplementary	(1)	COOPERATIVE			4					
				(2)	OTHER								
6	TECHNICAL	A	Preparatory	(1)	DAY SCHOOL					1			
				(2)	ADULT								
		B	Supplementary										
7	PRACTICAL NURSE AND OTHER HEALTH OCCUPATIONS	A	Practical Nurse	(1)	PREPARATORY							3	
				(2)	SUPPLEMENTARY								
		B	Other Health Occupations	(1)	PREPARATORY								
				(2)	SUPPLEMENTARY								
8	NUMBER OF DIFFERENT SCHOOLS PROVIDING ONE OR MORE TYPES OF VOCATIONAL-TECHNICAL PROGRAMS (Represented in each column)							70		1		3	

* *Include those institutions which offer both secondary and post-secondary programs.*

,47 (5/63)
merly DVE 331.
1)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON 25, D.C.

BUDGET BUREAU NO. 51-R155.10
APPROVAL EXPIRES 3/15/64

LOCAL PERSONNEL & ENROLLMENTS IN TEACHER EDUCATION IN VOCATIONAL & TECHNICAL EDUCATION

(Smith-Hughes, George-Barden)

READ INSTRUCTIONS ON BACK BEFORE COMPLETING

STATE/TERRITORY MAINE	PREPARED BY (*Name and title*) State Director	DATE Oct., 1963	FISCAL YR. ENDING JUNE 30, 19 63

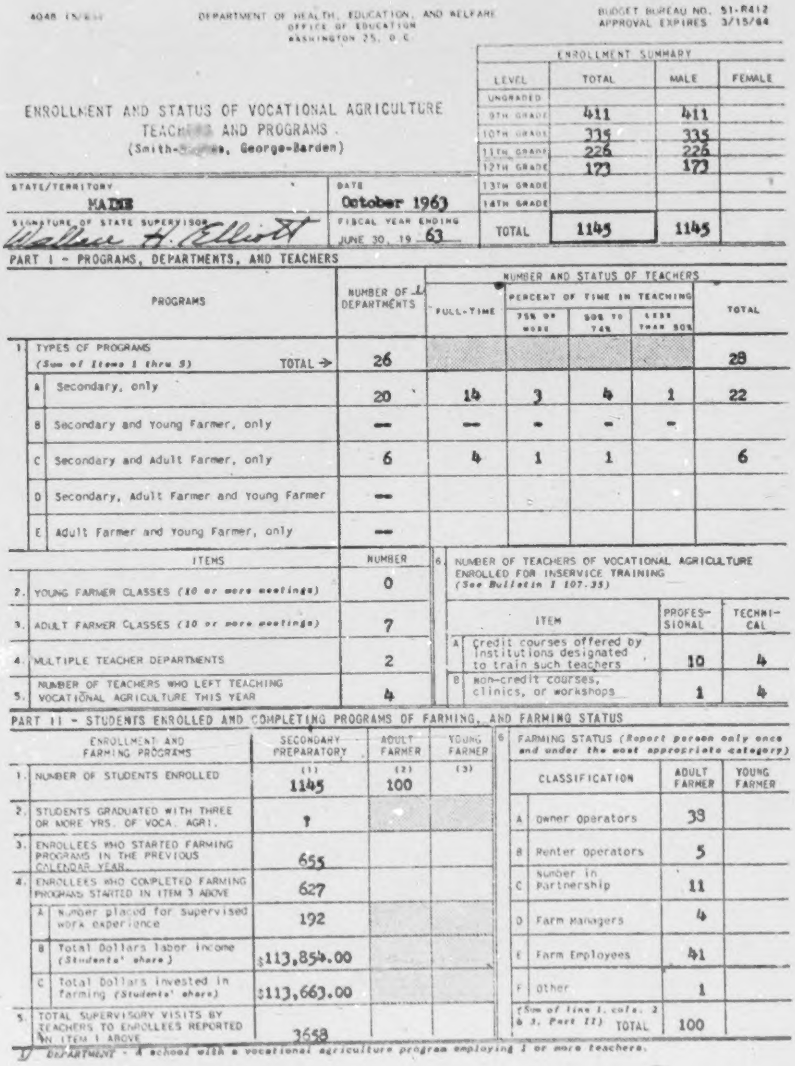
PART I - NUMBER OF LOCAL PERSONNEL IN VOCATIONAL & TECHNICAL EDUCATION PROGRAMS

TYPE OF POSITION (1)		TOTAL (*Cols. 3 thru 9*) (2)	AGRI-CULTURE (3)	DISTRI-BUTION (4)	HOME ECONOMICS (5)	OFFICE (6)	PRACT. NURSE & OTHER (7)	TECHNI-CAL (8)	TRADES & INDUSTRY (9)
1.	DIRECTOR, VOCATIONAL EDUCATION								
2.	SUPERVISOR, OR DIRECTOR								
3.	TEACHER EDUCATOR		1*		21*				
4.	TEACHERS (Vocational) (*See instr.*)								
A	ADULT (*Sum of lines 1 thru 3*)	74	6						68
	(1) APPRENTICE	23							23
	(2) PREPARATORY	1							1
	(3) SUPPLEMENTARY	50	6						44
B	SECONDARY (*Sum of lines 1 plus 2*)	134	28 *	1	72				33
	(1) FULL-TIME	96	18		70				8
	(2) PART-TIME	38	10	1	2				25
C	POST SECONDARY (*Lines 1 plus 2*)	34					13	4	17
	(1) FULL-TIME	31					10	4	17
	(2) PART-TIME	3							
D	SECONDARY-POST SECON. (*1 plus 2*)								
	(1) FULL-TIME								
	(2) PART-TIME								
E	NUMBER OF SECONDARY TEACHERS INCLUDED IN 4A ABOVE								
F	NUMBER POST SECONDARY TEACHERS INCLUDED IN 4A ABOVE								
G	NO. SECONDARY-POST SECONDARY TEACHERS INCLUDED IN 4A ABOVE								
5.	NO. FULL-TIME TEACHERS OF ADULTS INCLUDED IN 4A (*See instructions*)	0	0	0	0	0	0	0	0

PART II - ENROLLMENT IN ORGANIZED PRE-SERVICE AND IN-SERVICE VOCATIONAL TEACHER TRAINING

AGENCIES CONDUCTING TRAINING (1)			TOTAL (*Cols. 3 thru 9*) (2)	AGRI-CULTURE (3)	DISTRI-BUTION (4)	HOME ECONOMICS (5)	OFFICE (6)	PRACT. NURSE & OTHER (7)	TECHNI-CAL (8)	TRADES & INDUSTRY (9)
1.	GRAND TOTAL	TOTAL →	226	1		198				27
		IN-SERVICE*	68			41				27
		PRE-SERVICE	158	1		157				
2.	STATE BOARD	IN-SERVICE*	68			41				27
		PRE-SERVICE	158	1		157				
3.	LOCAL BOARDS OF EDUCATION	IN-SERVICE*								
		PRE-SERVICE								
4.	STATE TEACHERS EDUCATION INSTITUTION(S)									
5.	NO. INDIVIDUALS APPROVED FOR VOCATIONAL TEACHING (*1st time approved*) UNDER STATE PLAN		37	1		36				
6.	NO. COMPLETING INSTITUTIONAL PRE-SERVICE PROGRAM(S)		45	2		43				

* *SEE DEFINITION-PART II, OF IN-SERVICE TEACHER EDUCATION ON BACK*



4048 [illegible]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON 25, D.C.

BUDGET BUREAU NO. 51-R412
APPROVAL EXPIRES 3/15/64

ENROLLMENT AND STATUS OF VOCATIONAL AGRICULTURE TEACH[illegible] AND PROGRAMS.

(Smith-[illegible]s, George-Barden)

ENROLLMENT SUMMARY			
LEVEL	TOTAL	MALE	FEMALE
UNGRADED			
9TH GRADE	411	411	
10TH GRADE	335	335	
11TH GRADE	226	226	
12TH GRADE	173	173	
13TH GRADE			
14TH GRADE			
TOTAL	1145	1145	

STATE/TERRITORY: MAINE

DATE: October 1963

SIGNATURE OF STATE SUPERVISOR: Wallace H. Elliott

FISCAL YEAR ENDING: JUNE 30, 19 63

PART I - PROGRAMS, DEPARTMENTS, AND TEACHERS

PROGRAMS	NUMBER OF DEPARTMENTS [1]	NUMBER AND STATUS OF TEACHERS: FULL-TIME	PERCENT OF TIME IN TEACHING: 75% OR MORE	50% TO 74%	LESS THAN 50%	TOTAL
1. TYPES OF PROGRAMS (Sum of Items 1 thru 5) TOTAL →	26					28
A. Secondary, only	20	14	3	4	1	22
B. Secondary and Young Farmer, only	—	—	-	-	-	
C. Secondary and Adult Farmer, only	6	4	1	1		6
D. Secondary, Adult Farmer and Young Farmer	—					
E. Adult Farmer and Young Farmer, only	—					

ITEMS	NUMBER
2. YOUNG FARMER CLASSES (10 or more meetings)	0
3. ADULT FARMER CLASSES (10 or more meetings)	7
4. MULTIPLE TEACHER DEPARTMENTS	2
5. NUMBER OF TEACHERS WHO LEFT TEACHING VOCATIONAL AGRICULTURE THIS YEAR	4

6. NUMBER OF TEACHERS OF VOCATIONAL AGRICULTURE ENROLLED FOR INSERVICE TRAINING (See Bulletin I 107.35)

ITEM	PROFESSIONAL	TECHNICAL
A. Credit courses offered by institutions designated to train such teachers	10	4
B. Non-credit courses, clinics, or workshops	1	4

PART II - STUDENTS ENROLLED AND COMPLETING PROGRAMS OF FARMING, AND FARMING STATUS

ENROLLMENT AND FARMING PROGRAMS	SECONDARY PREPARATORY (1)	ADULT FARMER (2)	YOUNG FARMER (3)
1. NUMBER OF STUDENTS ENROLLED	1145	100	
2. STUDENTS GRADUATED WITH THREE OR MORE YRS. OF VOCA. AGRI.	?		
3. ENROLLEES WHO STARTED FARMING PROGRAMS IN THE PREVIOUS CALENDAR YEAR.	655		
4. ENROLLEES WHO COMPLETED FARMING PROGRAMS STARTED IN ITEM 3 ABOVE	627		
A. Number placed for supervised work experience	192		
B. Total Dollars labor income (Students' share)	$113,854.00		
C. Total Dollars invested in farming (Students' share)	$113,663.00		
5. TOTAL SUPERVISORY VISITS BY TEACHERS TO ENROLLEES REPORTED IN ITEM 1 ABOVE	3658		

6. FARMING STATUS (Report person only once and under the most appropriate category)

CLASSIFICATION	ADULT FARMER	YOUNG FARMER
A. Owner Operators	38	
B. Renter Operators	5	
C. Number in Partnership	11	
D. Farm Managers	4	
E. Farm Employees	41	
F. Other	1	
(Sum of line 1, cols. 2 & 3, Part II) TOTAL	100	

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[1] DEPARTMENT - A school with a vocational agriculture program employing 1 or more teachers.

49 (5/63)
early OVE 349)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON 25, D.C.

BUDGET BUREAU NO. 51-R420
APPROVAL EXPIRES [illegible]

ENROLLMENT IN DISTRIBUTION & MARKETING PROGRAMS
(By Standard Industrial Classification)
(George-Barden)

STATE/TERRITORY: MAINE

DATE: Nov. 1963

SIGNATURE OF STATE SUPERVISOR:

FISCAL YR. END. JUNE 30, 19 63

ENROLLMENT SUMMARY (Grades 10-14)

LEVEL		TOTAL	PLAN A M	PLAN A F	PLAN B M	PLAN B F	PLAN C M	PLAN C F 1/
UNGRADED								
GRADE	10TH							
	11TH							
	12TH	12			7	5		
	13TH							
	14TH							
TOTAL		12			7	5		

CLASSIFICATIONS (By major group or industry number according to the Standard Industrial Classification Manual, U.S. Bureau of the Budget)				ADULT PROGRAM CUMULATIVE		COOPERATIVE PROGRAM SECONDARY STUDENTS IN PLANS A, B, AND C		COOPERATIVE PROGRAM POST-SECONDARY 13TH & 14TH YEAR LEVEL STUDENTS		TOTAL CUMULATIVE ENROLLMENT (Cols. 2 thru 7)
				MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	
(1)				(2)	(3)	(4)	(5)	(6)	(7)	(8)
DIVISION F	RETAIL TRADE	52	Building Materials, Hardware			1				1
		53	General Merchandise			4	1			5
		54	Food Stores			1	1			2
		55	Automotive Dealers			1				1
		554	Gasoline Service Stations							
		56	Apparel, Accessories Stores				2			2
		57	Furniture Stores							
		58	Eating Places							
		591	Drug Stores							
		59	Other Retail Stores				1			1
		532-4	Non-Store Retailers							
	WHOLESALE TRADE	501	Motor Vehicles & Equipment							
		502	Drugs, Chemicals, etc.							
		503	Dry Goods, Apparel							
		504	Groceries & Related Products							
		505	Farm Prod. & Raw Materials							
		506	Electrical Goods							
		507	Hardware, Plumbing, Heating							
		508	Machinery, Equipment							
		509	Miscellaneous Wholesalers							
DIV. H	SERVICES	70	Hotels, Tourists Courts							
		72	Personal Services							
		73	Business Services							
		75	Auto Services & Garages							
		76	Misc. Repair Services							
		78-79	Recreation							
DIV. E, AND G	SPECIAL AREAS	40-47	Transportation							
		48	Communication							
		49	Elec., Gas & Sanitary Services							
		60-62	Finance							
		63-64	Insurance							
		65	Real Estate							
		422	Storing							
DIV. D MANUFACTURING										
			GRAND TOTAL →			7	5			12

ADULT PROGRAM

PURPOSE OF INSTRUCTION	NUMBER OF CLASSES	TOTAL CUMULATIVE ENROLLMENT	MAN-HOURS OF INSTRUCTIONS
1 Management (Proprietors & managers of single open units)			
2 Supervisory (Those who direct the work of others)			
3 Employee (Those who do not direct the work of others)			

1/ Enter number of students enrolled in a non-cooperative program operating under Plan C, per Bul. 1 (103-60-2(d)(3) prerequisite courses.

J9-988 753

4050 (5/63)
(formerly DVE 540)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON 25, D.C.

BUDGET BUREAU NO. 51-R415
APPROVAL EXPIRES 3/15/64

ENROLLMENT IN HOME ECONOMICS

(Homemaking and Wage Earning)

(Smith-Hughes, George-Barden)

STATE/TERRITORY	SIGNATURE OF STATE SUPERVISOR	DATE	FISCAL YEAR ENDING
MAINE	Louise F. Fettinger	Nov./63	JUNE 30, 19 63

PART I - COURSES FOR THE VOCATION OF HOMEMAKING

1 SECONDARY PROGRAMS *(Grades 9 thru 12). First, second, third & fourth year refer to full year sequential courses. Report full year enrollments by grades for each course. Under 'Other Courses', list half & full year courses separately, & report by grade for each.*

A	HOME ECONOMICS COURSES	SEX	ENROLLMENT BY GRADE TOTAL	9TH	10TH	11TH	12TH
(1)	FIRST YEAR	M					
		F	1770	1770			
(2)	SECOND YEAR	M					
		F	1152		1152		
(3)	THIRD YEAR	M					
		F	587			587	
(4)	FOURTH YEAR	M					
		F	357				357
	LIST OTHER HOME ECONOMICS COURSES *(Asterisk half-year courses)*						
(5)	Boys	M	70				70
		F					
(6)	Slow Learners	M					
		F	25	25			
(7)	Senior Special	M					
		F	585				585
(8)		M					
		F					
(9)		M					
		F					
B	TOTAL ENROLLMENT BELOW 9TH GRADE	M		▨	▨	▨	▨
		F		▨	▨	▨	▨
C	*(Sum of A & B)* TOTAL →						

2 POST SECONDARY PROGRAM *(Grades 13 and 14)*

A	HOME ECONOMICS COURSES	SEX	ENROLLMENT BY LENGTH OF COURSE TOTAL	FULL YEAR	ONE SEMES.	ONE QUARTER	TWO QTRS.
(1)	CHILD DEVELOPMENT	M					
		F					
(2)	HOME MANAGEMENT	M					
		F					
(3)	NUTRITION	M					
		F					
	OTHER HOME ECONOMICS COURSES *(List below)*						
(4)		M					
		F					
(5)		M					
		F					
(6)		M					
		F					
(7)		M					
		F					
	TOTAL →						

3 ADULT PROGRAM *(Incl. ungraded youth)*

	AREAS OF INSTRUCTIONS	SEX	ENROLL-MENT	MAN-HOURS OF INSTRUC-TIONS
A	CHILD DEVELOPMENT	M		
		F		
B	PARENT EDUCATION	M		
		F		
C	FAMILY RELATIONS	M		
		F		
D	CONSUMER EDUCATION	M		
		F		
E	FAMILY FINANCE	M		
		F		
F	HOME MANAGEMENT	M		
		F		
G	CLOTHING SELECTION & CARE	M		Not re-imbursed
		F	249	
H	CLOTHING CONSTRUCTION	M		
		F		
I	FOOD SELECTION AND STORAGE	M		
		F		
J	FOOD PREPARATION	M		
		F		
K	NUTRITION	M		
		F		
L	HOUSING	M		
		F		
M	HOME FURNISHING	M		
		F		
	OTHER HOME ECONOMICS COURSES *(List below)*			
N		M		
		F		
O		M		
		F		
P		M		
		F		
Q		M		
		F		
R		M		
		F		
S		M		
		F		
T		M		
		F		
	TOTAL →		249	

OE 4052 (5/63)
(Formerly DVE 554)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON 25, D.C.

BUDGET BUREAU NO. 51-R4.
APPROVAL EXPIRES 7/15/64

ENROLLMENTS IN PRACTICAL NURSE AND OTHER HEALTH OCCUPATIONS TRAINING PROGRAMS
(George-Barden Titles I and II)

STATE/TERRITORY: MAINE

FISCAL YEAR ENDING: JUNE 30, 19 63

SIGNATURE OF [illegible]SOR

DATE: July 31, 1963

	D.O.T. CODE NUMBER	OCCUPATIONS FOR WHICH INSTRUCTION WAS GIVEN	SECONDARY PREPARATORY								POST SECONDARY PREPARATORY				SUPPLEMENTARY		
			CUMULATIVE ENROLLMENTS						NUMBER OF GRADUATES		CUMULATIVE ENROLLMENTS		NUMBER OF GRADUATES		CUMULATIVE ENROLLMENTS		MAN-HOURS OF INSTRUCTION
			TOTAL		GRADE 11		GRADE 12										
	(1)	(2)	(3)		(4)		(5)		(6)		(7)		(8)		(9)		(10)
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1	2.38.20	Practical Nurse										99		69			
2		Dental Assistant															
3		Medical Assistant															
4		Operating Room Assistant															
5		Other *(Specify)*															
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

OE 4054 (5/63)
(Formerly DVE 555-3)

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
OFFICE OF EDUCATION
WASHINGTON 25, D.C.

BUDGET BUREAU NO. 51-R155.10
APPROVAL EXPIRES 3/15/64

SCHOOLS, CURRICULUM AND COURSE TITLES, AND ENROLLMENT IN TITLE III TECHNICAL PROGRAMS
(George-Barden)

STATE OR TERRITORY MAINE	SIGNATURE OF STATE SUPERVISOR	FISCAL YEAR ENDING JUNE 30, 1963	DATE Nov. 1963

LOCATION AND NAME OF SCHOOL (Do not report by County) (First, list alphabetically all cities, towns, villages, etc. in which classes were conducted. Under each location, list alphabetically the official names of schools conducting the classes.)	PREPARATORY CURRICULUM TITLES (Describe in clearly recognizable technologies, i.e., "CHEMICAL TECHNOLOGY", etc.)	SUPPLEMENTARY COURSE TITLES (Specify broad technology to which the course relates, e.g. "MECHANICAL TECHNOLOGY", Hydraulics, etc.)	CUMULATIVE ENROLLMENTS					
			PREPARATORY				SUPPLEMENTARY	
			SECONDARY (10th, 11th & 12th Grades)		POST SECONDARY (13th & 14th Grades)			
(1)	(2)	(3)	MALE (4)	FEMALE (5)	MALE (6)	FEMALE (7)	MALE (8)	FEMALE (9)
Bangor Bangor School Dept.		Electronics					17	
South Portland Maine Voc. Tech. Institute	Electronics Tech. Electrical Tech.				91			
Waterville Waterville School Dept.		Electronics					11	

ENROLLMENTS OF STUDENTS IN VOCATIONAL TRADES & INDUSTRY PREPARATORY CLASSES
(Smith-Hughes, George-Barden)

STATE/TERRITORY: Maine

DATE: Nov. 1963

SIGNATURE OF STATE SUPERVISOR: John A. Huell

FISCAL YEAR ENDING: JUNE 30, 19 63

ENROLLMENT SUMMARY (Secondary and Post Secondary)			
LEVEL	TOTAL	MALE	FEMALE
UNGRADED			
GRADE 9			
GRADE 10	222	222	
GRADE 11	252	292	
GRADE 12	164	164	
GRADE 13	95	95	
GRADE 14			
TOTAL	753		

OCCUPATION FOR WHICH TRAINING WAS GIVEN (List code number and occupations in numerical order using the Dictionary of Occupational Titles)		TYPE OF PREPARATORY PROGRAMS OR CLASSES						
		SECONDARY TYPES A AND B		POST SECONDARY TYPES A AND B		TYPE C *Include Part-Time general continuation under columns 7 and 8 using the code (G-C) in column 1.*		
		TOTAL NUMBER OF STUDENTS ENROLLED		TOTAL NUMBER OF STUDENTS ENROLLED		TOTAL NUMBER OF STUDENTS ENROLLED *(Excluding G-C)*		MAN HOURS OF INSTRUCTION
CODE NO. (1)	TITLE (2)	MALE (3)	FEMALE (4)	MALE (5)	FEMALE (6)	MALE (7)	FEMALE (8)	(9)
	GRAND TOTAL							
2-26	Cooks commercial			34				
3-89	Fishing occupations			43				
4-32	Cabinet makers	11						
4-49	Printers	15						
4-75	Machinists	174		50				
4-80	Sheet metal workers	40						
4-97	Electricians	13						
5-25	Carpenters	122		42				
5-81.010	Mechanics, automobile	83		57				
5-83	Mechanics and repairmen, NEC			13		10		1600
5-83 444	Electronics technicians	9						

[illegible]
(Formerly [illegible])

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON 25, D.C.

BUDGET BUREAU NO. [illegible]
APPROVAL EXPIRES [illegible]

ENROLLMENT OF STUDENTS IN VOCATIONAL TRADES AND INDUSTRY SUPPLEMENTARY CLASSES

(Smith-Hughes, George-Barden)

COOPERATIVE ENROLLMENT SUMMARY			
LEVEL	TOTAL	MALE	FEMALE
BELOW GRADE 9 (Age 14 and over)			
GRADE 9			
GRADE 10			
GRADE 11		19	4
GRADE 12		15	9
GRADE 13			
GRADE 14			
TOTAL	47	34	13

STATE/TERRITORY MAINE	DATE Nov./63
SIGNATURE OF STATE SUPERVISOR John A. Snell	FISCAL YEAR ENDING JUNE 30, 19 63

OCCUPATION FOR WHICH TRAINING WAS GIVEN (List code number and occupations in numerical order using the Dictionary of Occupational Titles)		TYPE OF SUPPLEMENTARY PROGRAMS OR CLASSES							
		SUPPLEMENTARY			PART-TIME				
		TOTAL NUMBER OF STUDENTS ENROLLED		ACTUAL MAN-HOURS OF INSTRUCTION	APPRENTICES			COOPERATIVE	
					TOTAL NUMBER REGISTERED	TOTAL NUMBER UNREGISTERED WITH A STATE OR FEDERAL AGENCY	TOTAL NUMBER RECEIVING RELATED INSTRUCTION	TOTAL NUMBER OF STUDENTS ENROLLED	
CODE	TITLE	MALE	FEMALE					MALE	FEMALE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	TOTAL →	1558	126				282	34	13

Fall 1969

[illegible] DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

[illegible]

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS
(Reimbursable & Reimbursed)

PREPARE ONE FORM FOR EACH [illegible]
CHECK APPROPRIATE BOX TO [illegible] REPORTED

01 ☒ AGRICULTURE 07 ☐ HEALTH ☐ TECHNICAL
04 ☐ DISTRIBUTION 09 ☐ HOME ECONOMICS ☐ OTHER (Specify)
17 ☐ TRADES & INDUSTRY 14 ☐ OFFICE

STATE [illegible]

DATE PREPARED [illegible]

FISCAL YEAR ENDING June 30, 19[illegible]

ENROLLMENT BY LEVEL OF PROGRAM

OE CODE	INSTRUCTIONAL PROGRAM	SEX	TOTAL (Cols. 5 thru 1?)	SECONDARY*				POST-SECONDARY			ADULT (on fall report, estimate annual enrollment)		PERSONS WITH SPECIAL NEEDS	END OF YEAR REPORT ONLY	
				GRADE¹ NINE	GRADE TEN	GRADE ELEVEN	GRADE TWELVE	PURPOSE 2 FULL-TIME ONLY 1st Year	PURPOSE 2 FULL-TIME ONLY 2nd Year	PART TIME ONLY	Preparatory	Supplementary		Secondary Completions	Post Secondary Completions
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	TOTAL	M	767	[illegible]	[illegible]	[illegible]	[illegible]					50			
		F	1			[illegible]									
01.0100	Agricultural Production	M	[illegible]	100	[illegible]	[illegible]	[illegible]								
		F													
01.0200	Agricultural Supplies	M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]								
		F													
01.0300	Agricultural mechanics	M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]								
		F													
01.0400	Agricultural Products	M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]								
		F													
01.0500	Ornamental Horticulture	M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]								
		F													
01.0600	Agricultural Resources	M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]								
		F													
01.0700	Forestry	M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]								
		F													

* [illegible] include ungraded enrollment in appropriate grade level in relation to anticipated completion of program.

¹ Column 5 includes a total of Female ________ and Male ________ students enrolled below grade 9 (if any).

OE [illegible] (REV. [illegible])

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

BUDGET BUREAU NO. 51-R0614
APPROVAL EXPIRES [illegible]

CHECK TYPE OF REPORT
☒ FALL REPORT (Due Dec. 1 each year)
☐ END OF YEAR REPORT

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS
(Reimbursable & Reimbursed)

PREPARE ONE FORM FOR EACH VOCATIONAL PROGRAM
CHECK APPROPRIATE BOX TO INDICATE PROGRAM REPORTED

01 ☐ AGRICULTURE
04 ☒ DISTRIBUTION
17 ☐ TRADES & INDUSTRY
07 ☐ HEALTH
09 ☐ HOME ECONOMICS
14 ☐ OFFICE
16 ☐ TECHNICAL
☐ OTHER (Specify)

Read instructions on reverse before completing this report.

STATE TERRITORY: Maine

DATE PREPARED: January 15, 1968

FISCAL YEAR ENDING: June 30, 19 68

ENROLLMENT BY LEVEL OF PROGRAM

OE CODE	INSTRUCTIONAL PROGRAM	SEX	TOTAL (Cols. 5 thru 11)	SECONDARY* GRADE NINE[1]	SECONDARY* GRADE TEN	SECONDARY* GRADE ELEVEN	SECONDARY* GRADE TWELVE	POST SECONDARY PURPOSE 2 FULL-TIME ONLY 1st Year	POST SECONDARY PURPOSE 2 FULL-TIME ONLY 2nd Year	POST SECONDARY PART-TIME ONLY	ADULT (on Jan. 1 report, estimate annual enrollment) Preparatory	ADULT Supplementary	PERSONS WITH SPECIAL NEEDS (Spec. Pro.)	END OF YEAR REPORT ONLY [illegible]	END OF YEAR REPORT ONLY Post Secondary Completions
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	TOTAL	M	111			45	32	23	11						
		F	122			74	47	1							
04	Distributive Ed.	M	111			45	32	23	11						
		F	122			74	47	1							
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													

* Secondary — include ungraded enrollment in appropriate grade level in relation to anticipated completion of program.

[1] Column 5 includes a total of Female ______ and Male ______ students enrolled below grade 9 (if any).

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

CHECK TYPE OF REPORT

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS
(Reimbursable & Reimbursed)

Read instructions on reverse side before completing this report.

PREPARE ONE FORM FOR EACH VOCATIONAL PROGRAM. CHECK APPROPRIATE BOX TO INDICATE PROGRAM REPORTED.

01 ☐ AGRICULTURE 07 ☐ HEALTH 16 ☐ TECHNICAL
04 ☐ DISTRIBUTION 09 ☐ HOME ECONOMICS ☐ OTHER (Specify)
17 ☒ TRADES & INDUSTRY 14 ☐ OFFICE

STATE TERRITORY: Maine
DATE PREPARED: December 20, 1967
FISCAL YEAR ENDING June 30, 19 68

			ENROLLMENT BY LEVEL OF PROGRAM												
				SECONDARY				POST SECONDARY			ADULT		PERSONS WITH SPECIAL NEEDS	END OF YEAR REPORT ONLY	
OE CODE	INSTRUCTIONAL PROGRAM	SEX	TOTAL	GRADE NINE	GRADE TEN	GRADE ELEVEN	GRADE TWELVE	FULL TIME ONLY 1st Year	FULL TIME ONLY 2d Year	PART TIME ONLY	Preparatory	Supplementary		Completions	Employment
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	TOTAL	M	2345			433	371	550	291			700			
		F	123			18	25					80			
17.	Trades and Industry	M	2136			329	266	550	291			700		[illegible]	[illegible]
		F	80									80			[illegible]
C 17	Trades and Industry	M	209			104	105							[illegible]	
		F	43			18	25							[illegible]	
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													

OE 4045 (REV. 2/67)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

BUDGET BUREAU NO. 51-R0614
APPROVAL EXPIRES 6/30/68

CHECK TYPE OF REPORT
☒ FALL REPORT (Due Dec. 1 each year)
☐ END OF YEAR REPORT

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS
(Reimbursable & Reimbursed)

PREPARE ONE FORM FOR EACH VOCATIONAL PROGRAM.
CHECK APPROPRIATE BOX TO INDICATE PROGRAM REPORTED

01 ☐ AGRICULTURE
07 ☒ HEALTH
16 ☐ TECHNICAL
04 ☐ DISTRIBUTION
09 ☐ HOME ECONOMICS
☐ OTHER (Specify)
17 ☐ TRADES & INDUSTRY
14 ☐ OFFICE

Read instructions on reverse before completing this report.

STATE TERRITORY: Maine

DATE PREPARED: January 15, 1968

FISCAL YEAR ENDING: June 30, 19 68

OE CODE	INSTRUCTIONAL PROGRAM	SEX	TOTAL (Cols. 5 thru 14)	SECONDARY* GRADE NINE	GRADE TEN	GRADE ELEVEN	GRADE TWELVE	POST-SECONDARY PURPOSE 2 FULL-TIME ONLY 1st Year	2nd Year	PART TIME ONLY	ADULT (on fall report, estimate annual enrollment) Preparatory	Supplementary	PERSONS WITH SPECIAL NEEDS (Spec. Prog.)	END OF YEAR REPORT ONLY Drop-outs, Completions	Post Secondary Completions
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	TOTAL	M													
		F	122					122							[redacted]
07	Health	M													
		F	122					122							[redacted]
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													

* Secondary - include ungraded enrollment in appropriate grade level in relation to anticipated completion of program.

OE 4045 (REV. 1-68) DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

BUDGET BUREAU NO. 51-R0814
APPROVAL EXPIRES 6-30-68

CHECK TYPE OF REPORT
☐ FALL REPORT (ENROLLMENT ONLY)
☐ END OF YEAR REPORT

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS
(Reimbursable & Reimbursed)

Read instructions on reverse before completing this report.

PREPARE ONE FORM FOR EACH VOCATIONAL PROGRAM.
CHECK APPROPRIATE BOX TO INDICATE PROGRAM REPORTED

01 ☐ AGRICULTURE
07 ☐ HEALTH
16 ☐ TECHNICAL
04 ☐ DISTRIBUTION
09 ☒ HOME ECONOMICS
☐ OTHER (Specify)
17 ☐ TRADES & INDUSTRY
14 ☐ OFFICE

STATE TERRITORY: MAINE

DATE PREPARED: August 13, 1968

FISCAL YEAR ENDING: June 30, 19 67

ENROLLMENT BY LEVEL OF PROGRAM

OE CODE	INSTRUCTIONAL PROGRAM	SEX	TOTAL (Cols. 5 thru 11)	SECONDARY*				POST SECONDARY			ADULT (on fall report, estimate annual enrollment)		PERSONS WITH SPECIAL NEEDS (Specify)	END OF YEAR REPORT ONLY	
				GRADE[1] NINE	GRADE TEN	GRADE ELEVEN	GRADE TWELVE	PURPOSE 2 FULL-TIME ONLY 1st Year	PURPOSE 2 FULL-TIME ONLY 2nd Year	PART-TIME ONLY	Preparatory	Supplementary		Secondary Completions	Post Secondary Completions
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	TOTAL	M													
		F												1183	
	Useful Home Economics	M													
		F												*1172	
	Gainful Home Economics	M													
		F												11	
		M													
		F													
		M	*Number of girls scheduled to complete the home economics 3-year												
		F	sequence either their junior or senior year.												
		M													
		F													
		M													
		F													
		M													
		F													

*Secondary - include ungraded enrollment in appropriate grade level in relation to anticipated completion of program.

[1] Column 5 includes a total of Female ________ and Male ________ students enrolled below grade 9 (if any).

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

BUDGET BUREAU NO. 51-R0814
APPROVAL EXPIRES 6-30-68

CHECK TYPE OF REPORT
☐ PRELIMINARY ENROLLMENT (Due Dec. 1 each year)
☐ END OF YEAR REPORT

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS
(Reimbursable & Reimbursed)

Read instructions on reverse before completing this report.

PREPARE ONE FORM FOR EACH VOCATIONAL PROGRAM
CHECK APPROPRIATE BOX TO INDICATE PROGRAM REPORTED

01 ☐ AGRICULTURE 07 ☐ HEALTH 11 ☐ TECHNICAL
04 ☐ DISTRIBUTION 09 ☒ HOME ECONOMICS ☐ OTHER (Specify)
17 ☐ TRADES & INDUSTRY 14 ☐ OFFICE

STATE TERRITORY Maine

DATE PREPARED December 1, 1967

FISCAL YEAR ENDING June 30, 19 68

OE CODE	INSTRUCTIONAL PROGRAM	SEX	TOTAL (Cols. 5 thru 14)	SECONDARY* GRADE NINE	SECONDARY* GRADE TEN	SECONDARY* GRADE ELEVEN	SECONDARY* GRADE TWELVE	POST-SECONDARY PURPOSE 7 FULL-TIME ONLY 1st Year	POST-SECONDARY PURPOSE 7 FULL-TIME ONLY 2nd Year	POST-SECONDARY PART-TIME ONLY	ADULT (on full or part, estimate annual enrollment) Preparatory	ADULT Supplementary	PERSONS WITH SPECIAL NEEDS (Specified)	END OF YEAR REPORT ONLY Secondary [illegible]	END OF YEAR REPORT ONLY Post Secondary Completion
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	TOTAL	M	98		20	2	76								
		F	5724 5196	1700	1242	710	1497						25		
		M	93		20	2	76								
09	Home Economics (Useful)	F	5724 5196	1700	1242	710	1497						25		
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													

* Secondary - include ungraded enrollment in appropriate grade level in relation to anticipated completion of program.

[illegible]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

BUDGET BUREAU NO. 51-R0614
APPROVAL EXPIRES 6-30-68

CHECK TYPE OF REPORT
☒ FALL ENROLLMENT (Due Dec. 1 each year)
☐ END OF YEAR REPORT

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS
(Reimbursable & Reimbursed)

PREPARE ONE FORM FOR EACH VOCATIONAL PROGRAM
CHECK APPROPRIATE BOX TO INDICATE PROGRAM REPORTED

01 ☐ AGRICULTURE
04 ☐ DISTRIBUTION
17 ☐ TRADES & INDUSTRY
07 ☐ HEALTH
09 ☐ HOME ECONOMICS
14 ☒ OFFICE
16 ☐ TECHNICAL
☐ OTHER (Specify)

Read instructions on reverse before completing this report.

STATE/TERRITORY: Maine

DATE PREPARED: January 15, 1968

FISCAL YEAR ENDING June 30, 19 68

OE CODE	INSTRUCTIONAL PROGRAM	SEX	ENROLLMENT BY LEVEL OF PROGRAM												
			TOTAL (Cols. 5 thru 11)	SECONDARY*				POST SECONDARY			ADULT		PERSONS WITH SPECIAL NEEDS	END OF YEAR REPORT ONLY	
				GRADE NINE	GRADE TEN	GRADE ELEVEN	GRADE TWELVE	PURPOSE 2 FULL-TIME ONLY 1st Year	PURPOSE 2 FULL-TIME ONLY 2nd Year	PART-TIME ONLY	Preparatory	Supplementary		Placement Completions	Post Secondary Completions
	TOTAL	M	3468	801	1257	981	415	4							
		F	8039	1428	2760	1763	2067	17	4						
		M	3383	801	1257	934	382	4						[illegible]	
14	Clerical	F	5711	1428	2760	317	1203	3						[illegible]	
		M	80			47	33								
14	Secretarial	F	2328			1445	864	14	4						
		M													
		F													
		M													
		F													
		M													
		F	* Information is not collected												
		M													
		F													
		M													
		F													

* Secondary - include ungraded enrollment in appropriate grade level in relation to anticipated completion of program.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

BUDGET BUREAU NO. [illegible]
APPROVAL EXPIRES [illegible]

CHECK TYPE OF REPORT
☒ FALL REPORT (TENTATIVE) [illegible]
☐ ENTIRE YEAR REPORT

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS
(Reimbursable & Reimbursed)

Read instructions on reverse before completing this report.

PREPARE ONE FORM FOR EACH VOCATIONAL PROGRAM
CHECK APPROPRIATE BOX TO INDICATE PROGRAM REPORTED

01 ☐ AGRICULTURE 07 ☐ HEALTH 16 ☒ TECHNICAL
04 ☐ DISTRIBUTION 09 ☐ HOME ECONOMICS ☐ OTHER (Specify)
17 ☐ TRADES & INDUSTRY 14 ☐ OFFICE

STATE TERRITORY: Maine

DATE PREPARED: December 20, 1967

FISCAL YEAR ENDING: June 30, 19 68

OE CODE	INSTRUCTIONAL PROGRAM	SEX	ENROLLMENT BY LEVEL OF PROGRAM												
			TOTAL (Cols. 5 thru 14)	SECONDARY*				POST-SECONDARY			ADULT (see fall in [illegible])		PERSONS WITH SPECIAL NEEDS	END OF YEAR REPORT ONLY	
				GRADE NINE	GRADE TEN	GRADE ELEVEN	GRADE TWELVE	PURPOSE 2 FULL-TIME ONLY 1st Year	PURPOSE 2 FULL-TIME ONLY 2nd Year	PART-TIME ONLY	Preparatory	Supplementary		[illegible]	[illegible]
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	TOTAL	M	194			14	14	125	40						
		F	1						1						
16	Technical Occupations	M	194			14	14	125	40						
		F	1						1						
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													
		M													
		F													

* Secondary - include ungraded enrollment in appropriate grade level in relation to anticipated completion of program.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS

(Vocational Education Amendments of 1968, P.L. 90-576)

READ INSTRUCTIONS ON REVERSE BEFORE COMPLETING THIS FORM

O.M.B. NO. 51-R0841
APPROVAL EXPIRES: 3/31/73

STATE/OUTLYING AREA: Maine

DATE PREPARED: November 30, 1972

FISCAL YEAR ENDING: June 30, 1972

REPORT DUE: October 1, 1972

SECTION I - ACTUAL ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS

PROGRAM	TOTAL		NUMBER		SECONDARY			ADULT			COOPERATIVE	
CODE TITLE (a)	FEMALE (b)	MALE (c)	DISAD-VANTAGED (d)	HANDI-CAPPED (e)	BELOW GRADE 9 (f)	GRADES 9 - 12 (g)	POST-SECONDARY (h)	PREPAR-ATORY (i)	SUPPLE-MENTAL (j)	APPREN-TICESHIP (k)	PART B (l)	PART G (m)
GRAND TOTAL *(Unduplicated)*	16,098	13,774	625	291	32	16,779	2,065	42	9,981	973	224	740
01.0000 TOTAL AGRICULTURE	35	655	32	5	32	623			35		4	16
01.0100 AGRIC PROD	18	297	22	2	9	306						
01.0200 AGRIC SUP/SERV		4				4						
01.0300 AGRIC MECH		117			17	100						
01.0400 AGRIC PRODUCTS		6		2		6						
01.0500 ORNAMENTAL HORT	14	20				34						
01.0600 AGRIC RESOURCES	3	82	6		2	83						
01.0700 FORESTRY		94	4	1	4	90						
01.9500 OTHER* N.A.		35							35			
04.0000 TOTAL DISTRIBUTION	210	486	53	4		427	121		148		35	142
04.0100 ADVERTISING SERV	7					7						
04.0200 APPAREL & ACCES	23	1		1		24						
04.0300 AUTOMOTIVE	2	39	6	1		41						
04.0400 FINANCE & CREDIT	10	12				22						
04.0500 FLORISTRY	7	3	1			10						
04.0600 FOOD DISTRIBUTION	4	20				24						
04.0700 FOOD SERVICES	9	23	2			32						
04.0800 GEN MERCHANDISE	75	185	30	1		165	95					
04.0900 HOME, BLDG	1	7				8						
04.1000 HOME FURNISHINGS	3	2				5						
04.1100 HOTEL & LODGING	3	37	4			14	26					
04.1200 INDUSTRIAL MARKETING		2				2						
04.1300 INSURANCE	2	2	1			4						
04.1400 INTERNATIONAL TRADE		2				2						
04.1500 PERSONAL SERVICES	22	6	3	1		28						
04.1600 PETROLEUM	1	3				4						
04.1700 REAL ESTATE	4	31				35						

*Other. Specify by title new and emerging occupations and cluster programs.

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS, Section I - Actual Enrollments in Vocational Education Programs (Continued)

STATE/OUTLYING AREA	TOTAL		NUMBER		SECONDARY			ADULT			COOPERATIVE	
PROGRAM CODE (a) TITLE	FEMALE (b)	MALE (c)	DISAD-VANTAGED (d)	HANDI-CAPPED (e)	BELOW GRADE 9 (f)	GRADES 9 - 12 (g)	POST SECONDARY (h)	PREPAR-ATORY (i)	SUPPLE-MENTAL (j)	APPREN-TICESHIP (k)	PART B (l)	PART G (m)
04.1800 RECREATION & TOURISM												
04.1900 TRANSPORTATION												
04.9900 OTHER* NA	37	111	6						148			
07.0000 TOTAL HEALTH	497	32	11	2		142	229	20	138		19	74
07.0101 DENTAL ASSISTANT												
07.0102 DENT HYGIENISTS (Asso)												
07.0103 DENT LAB TECH												
07.0203 MED LAB ASSISTING	20	11	2				31					
07.0299 OTHER MED LAB TECHNOL												
07.0301 NURSE, ASSO DEGREE												
07.0302 PRACTICAL (Voc) NURSE	162	5					167					
07.0303 NURSES' ASSIST (Aide)	80		9	2		80						
07.0401 OCCUPATIONAL THERAPY												
07.0402 PHYSICAL THERAPY												
07.0501 RADIOLOGIC TECHNOLOGY												
07.0700 ENVIRONMENTAL HEALTH												
07.0800 MENTAL HEALTH TECHNOL												
07.0903 INHALATION THERAPY TECH												
07.0904 MEDICAL ASSISTANT	62	2				33	31					
07.0906 HEALTH AIDE	29					29						
07.9900 OTHER* NA	144	14						20	138			
09.0100 TOTAL CONSUMER & HMKG	2,793		47	24		2,718			75			
09.0102 CHILD DEVELOPMENT												
09.0103 CLOTHING & TEXTILES												
09.0104 CONSUMER EDUCATION												
09.0106 FAMILY RELATIONS												
09.0107 FOOD & NUTRITION												
09.0108 HOME MANAGEMENT												
09.0109 HOUSING & HOME FURN												
09.0199 OTHER* NA	75								75			
09.0101 Comprehensive	2,718		47	24		2,718						
09.0200 TOTAL OCCUP PREP	195	24	28			219					2	10
09.0201 CARE & GUID OF CHILDREN	81		6			81						

O[illegible]RM 3[illegible] 1/71 [illegible]LAC[illegible] FOR[illegible] 6/7[illegible] WHICH IS OBSOLETE

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS, Section I - Actual Enrollments in Vocational Education Programs (Continued)

STATE/OUTLYING AREA Maine	TOTAL		NUMBER		SECONDARY			ADULT			COOPERATIVE	
PROGRAM CODE (a) TITLE	FEMALE (b)	MALE (c)	DISAD-VANTAGED (d)	HANDI-CAPPED (e)	BELOW GRADE 9 (f)	GRADES 9 - 12 (g)	POST SECONDARY (h)	PREPAR-ATORY (i)	SUPPLE-MENTAL (j)	APPREN-TICESHIP (k)	PART B (l)	PART G (m)
09.0202 CLOTHING, MGT, PROD & SERVICES	39		2			39						
09.0203 FOOD MGT, PROD & SERV	75	24	20			99						
09.0204 HOME FURNISHING, EQUIPMENT AND SERVICES												
09.0205 INST. & HOME MGT & SUPPORTING SERVICES												
09.0299 OTHER*												
14.0000 TOTAL OFFICE	11,153	1,294	58			10,277	92	22	2,056		28	110
14.0100 ACCOUNTING & COMPUTING	1,346	364	10			1,665	45					
14.0200 BUS DATA PROCESSING SYS	97	71				160	8					
14.0300 FILING, OFFICE MACH	3,609	715	17			4,324						
14.0400 INFO COMMUNIC OCCUP												
14.0500 MTLS SUPP, TRANS, ETC												
14.0600 PERS, TRG, & RELATED												
14.0700 STENO, SECY, & RELATED	4,103	64	31			4,128	39					
14.0800 SUPV & ADMIN MGT												
14.0900 TYPING & RELATED OCCUP												
14.9900 OTHER* NA	1,998	80						22	2,056			
16.0000 TOTAL TECHNICAL	19	443		1			318		144			
16.0101 AERONAUTICAL TECHNOL												
16.0103 ARCHIT TECHNOL												
16.0104 AUTOMOTIVE TECHNOL												
16.0105 CHEMICAL TECHNOL												
16.0106 CIVIL TECHNOL		41		1			41					
16.0107 ELEC TECHNOL		65					65					
16.0108 ELECTRONICS TECHNOL		73					73					
16.0109 ELECTRO-MECH TECHNOL												
16.0110 ENVIRONMENTAL CONTROL TECHNOL												
16.0111 INDUS TECHNOL												
16.0112 INSTR TECHNOL		19					19					
16.0113 MECH TECHNOL												
16.0114 METALL TECHNOL												

ORM 9/7 REPLACES OE FORM 3138, 6/70, WHICH IS OBSOLETE

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS, Section I - Actual Enrollments in Vocational Education Programs *(Continued)*

STATE/OUTLYING AREA	TOTAL		NUMBER		SECONDARY			ADULT			COOPERATIVE	
PROGRAM CODE (a) TITLE	FEMALE (b)	MALE (c)	DISAD-VANTAGED (d)	HANDI-CAPPED (e)	BELOW GRADE 9 (f)	GRADES 9 - 12 (g)	POST SECONDARY (h)	PREPAR-ATORY (i)	SUPPLE-MENTAL (j)	APPREN-TICESHIP (k)	PART B (l)	PART G (m)
16.0117 SCI DATA TECHNOL												
16.0601 COMMERCIAL PILOT TRG												
16.0602 FIRE & SAFETY TECHNOL		19					19					
16.0603 FORESTRY TECHNOL												
16.0604 OCEANOGRAPHIC TECHNOL	12	33					45					
16.0605 POLICE SCIENCE	5	51					56					
16.9901 AIR POLLUTION TECHNOL												
16.9902 W & WASTE W TECHNOL												
16.9900 OTHER* NA	2	142							144			
17.0000 TOTAL TRADES & INDUSTRY	1,136	10,638	228	53		2,111	1,305		7,385	973	136	388
17.0100 AIR CONDITIONING		82	1			25	57					
17.0200 APPLIANCE REPAIR												
17.0301 BODY & FENDER		91	9			65	26					
17.0302 MECHANICS, AUTO		756	94	21		463	293					
17.0399 OTHER AUTOMOTIVE												
17.0400 AVIATION OCCUP												
17.0500 BLUEPRINT READING												
17.0600 BUS MACH MAINT												
17.0700 CML ART OCCUP												
17.0800 CML FISHERY OCCUP												
17.0900 CML PHOTOG OCCUP												
17.1001 CARPENTRY	1	680	33	7		471	210					
17.1002 ELECTRICITY		34	7				34					
17.1004 MASONRY		15	2				15					
17.1007 PLUMB & PIPEFITTING		28	2			28						
17.1099 OTHER CONSTR & MAINT		53	26			20	33					
17.1100 CUSTODIAL SERV		11	4	7		11						
17.1200 DIESEL MECH												
17.1300 DRAFTING OCCUP	13	329	4	1		292	50					
17.1400 ELEC OCCUP		358	2			269	89					
17.1500 ELECTRONIC OCCUP		132	2	1		57	75					
17.1600 FABRIC MAINT SERV												
17.1700 FOREMANSHIP SUPER & MGT DEVEL												
17.1900 GRAPHICS ARTS OCCUP	30	127	13	4		111	46					
17.2000 IND ATOMIC ENERGY												

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS, Section I - A[illegible] Enrollments in Vocational Education Programs (Continued)

STATE/OUTLYING AREA	TOTAL		NUM[illegible]		SECONDARY			ADULT			COOPERATIVE	
PROGRAM CODE (a) TITLE	FEMALE (b)	MALE (c)	DISAD-VANTAGED (d)	HANDI-CAPPED (e)	BELOW GRADE 9 (f)	GRADES 9 - 12 (g)	POST SECONDARY (h)	PREPAR-ATORY (i)	SUPPLE-MENTAL (j)	APPREN-TICESHIP (k)	PART B (l)	PART G (m)
17.2100 INSTR MAINT & REPAIR												
17.2200 MARITIME OCCUP		86	5				86					
17.2300 METALWORKING OCCUP		414	7	1		271	143					
17.2400 METALL OCCUPATIONS												
17.2601 BARBERING												
17.2602 COSMETOLOGY												
17.2699 OTHER PERSONAL SERV												
17.2700 PLASTICS OCCUP												
17.2801 FIREMAN TRAINING												
17.2802 LAW ENFORCEMENT TRG												
17.2899 OTHER PUBLIC SERV		34	4				34					
17.2900 QTY FOOD OCCUP	15	99	11	4			114					
17.3000 REFIGERATION												
17.3100 SMALL ENG REPAIR		28	2	7		28						
17.3200 STATIONARY ENERGY SOURCES OCCUPATION												
17.3300 TEXTILE PROD & FAB												
17.3400 LEATHER WORKING												
17.3500 UPHOLSTERING												
17.3600 WOODWORKING OCCUP												
17.9900 OTHER* NA	1,077	7,281							7,385	973		
99.0000 TOTAL SPECIAL PROGRAMS	72	298	168	202		262	108*					
99.0100 GROUP GUIDANCE (Prevocational)	40	162		202		202						
99.0200 PREPOSTSECONDARY												
99.0300 REMEDIAL	32	136	168			60	108					
99.0400 OTHER N.E.C.												

*Dup. Count - listed in occ. areas -r 12 female - 96 male

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS (Con't)	STATE/OUTLYING AREA	FISCAL YEAR
	Maine	1972

SECTION II - ESTIMATED ENROLLMENT BY PROGRAM

ITEM (a)		TOTAL (b)	SECONDARY (c)	POSTSECONDARY (d)	ADULT (e)
1. GRAND TOTAL, UNDUPLICATED (same as line 1, Sec. I)		29,872	16,811	2,065	10,996
2. PART 102(b) - DISADVANTAGED		138	105	2	31
3. PART B - STATE PROGRAMS	TOTAL	26,941	13,988	2,063	10,890
4. (1) DISADVANTAGED		(454)	(302)	(104)	(48)
5. (2) HANDICAPPED		(263)	(260)	(2)	(1)
6. PART F - CONSUMER AND HOMEMAKING	TOTAL	2,793	2,718	--	75
7. (1) DEPRESSED AREAS		(604)	(604)	(--)	(--)
8. (2) DISADVANTAGED		(33)	(33)	(--)	(--)
9. (3) HANDICAPPED		(28)	(28)	(--)	(--)
10. PART G - COOPERATIVE	TOTAL	740	740	--	
11. (1) DISADVANTAGED		(--)	(--)	(--)	
12. (2) HANDICAPPED		(--)	(--)	(--)	
13. PART H - WORK STUDY	TOTAL	218		218	
14. (1) DISADVANTAGED		(218)	( )	(218)	
15. (2) HANDICAPPED		( )	( )	( )	

SECTION III - ESTIMATED ENROLLMENT BY RACIAL/ETHNIC GROUP

1. REGULAR	TOTAL	28,956	16,083	1,957	10,916
2. (1) AMERICAN INDIAN		--	--	--	--
3. (2) NEGRO		--	--	--	--
4. (3) ORIENTAL		--	--	--	--
5. (4) SPANISH SURNAMED AMERICAN		--	--	--	--
6. (5) OTHER		--	--	--	--
7. DISADVANTAGED	TOTAL	625	440	106	79
8. (1) AMERICAN INDIAN		--	--	--	--
9. (2) NEGRO		--	--	--	--
10. (3) ORIENTAL		--	--	--	--
11. (4) SPANISH SURNAMED AMERICAN		--	--	--	--
12. (5) OTHER		--	--	--	--
13. HANDICAPPED	TOTAL	291	288	2	1
14. (1) AMERICAN INDIAN		--	--	--	--
15. (2) NEGRO		--	--	--	--
16. (3) ORIENTAL		--	--	--	--
17. (4) SPANISH SURNAMED AMERICAN		--	--	--	--
18. (5) OTHER		--	--	--	--

SECTION IV - ESTIMATED ENROLLMENT BY GEOGRAPHIC LOCATION

1. REGULAR	TOTAL	28,956	16,083	1,957	10,916
2. (1) SMSA		8,260	2,698	979	4,583
3. CENTRAL CITY		1,862	1,028	834	4,293
4. (2) NON-SMSA		20,696	13,385	978	6,333
5. DISADVANTAGED	TOTAL	625	440	106	79
6. (1) SMSA		80	40	40	--
7. CENTRAL CITY		80	40	40	--
8. (2) NON-SMSA		545	400	66	79
9. HANDICAPPED	TOTAL	291	288	2	1
10. (1) SMSA		2	2	--	--
11. CENTRAL CITY		--	--	--	--
12. (2) NON-SMSA		289	286	2	1

OE FORM 3138, 5/71 REPLACES OE FORM 3138, 6/70, WHICH IS OBSOLETE

Projection for 1977

Due to increases in the expansion of secondary and postsecondary vocational education programs it is estimated that the enrollments will increase approximately 40 percent at both levels.

b. General Description

Maine has made a serious commitment to provide more vocational education in its secondary schools, and as mentioned before, much has been done to meet this commitment in the period since the passage of the Vocational Education Act of 1963, and the Vocational Education Amendments of 1968. In an effort to reach as many students as possible, the State established 13 regional centers in the denser population areas so vocational education programs are accessible to approximately 60 percent of the high school population, or about 40,000 students. It is equally urgent that the other 40 percent, some 25,000 students, be granted comparable opportunities. The State Board of Education recognized that a thorough review of the rapidly growing system of vocational education was needed and that a master plan devised for effective expansion of the system was necessary to make vocational education opportunities available to all secondary school students in the State. These 12 new regions have been established for vocational education and the funds used for these programs are State funds and will be called State job training programs for youth and adults. In these 12 regions the cooperative concept will be utilized and students will have the opportunity to enter some of the newest job fields in the State. At the postsecondary level we will have expanded programs in fire science and law enforcement technology, and with the passage of our part II State budget for expanding courses in vocational education, opportunities will be available in the expanding health fields and the mechanical technology area.

c. Postsecondary Courses

In fiscal year 1962–63 there was only one postsecondary vocational technical institute in Maine. Student enrollment was 392. In the past 10 years the number of vocational-technical institutes has grown to six. In addition, two schools of practical nursing have been in operation over the past 4 years. The total enrollment as of October 1, 1973, was 2,149 for the institutes and 100 for the practical nursing schools. This represents an increase of 1,757 regular students over the past 10 years.

VTI ENROLLMENTS 1972-73

Code	Course	KVVTI				CMVTI				EMVTI				NMVTI				SMVTI				WCVTI			
		Freshmen		Seniors		Freshmen		Seniors		Freshmen		Seniors		Freshmen		Seniors		Freshmen		Seniors		Freshmen		Seniors	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
01.0501	Plant and soil technology																	8	3						
01.0703	Wood harvesting																					10			
04.2000	Distribution and marketing	8		10						63.	6	34	2												
04.1100	Hotel-motel management																					8	2	6	
07.02	Medical laboratory technology									10	15	4	17												
07.0302	Licensed practical nursing					1	39			1	29				24	1	13								
07.0303	Nurse aide																						12		
07.0501	Radiologic technology									1	8														
07.09	Health assistant			1	4																				
07.09	Medical assistant			5	16																				
09.0203	Institutional foods									13	7														
14.01	Accounting													11	9	13	3								
14.07	Secretarial and related														26		14								
14.0203	Junior computer programer													7	5	4									
14.0702	Secretarial																								
16.010602	Environmental control									24		11													
16.010603	Structural technology					14		11																	
16.0107	Electrical technology									20		8						17		9					
16.0108	Electronics technology									33		22						28		14		15	1		
16.0112	Process control					(1)																			
16.0602	Fire science technology																	14		7					
16.0604	Oceanographic technology																	19	5	9	2				
16.0605	Law enforcement technology																	24	5	16	4				
17.0199	Air conditioning, heating																	20		20					
17.0301	Auto body repair													15		12									
17.0302	Auto mechanics					26		14		43		10		34		18		58		31		14		14	
17.10	Domestic home construction																					21			
17.1000	Construction and maintenance trades					25		14		45		26						40		20					
17.1001	Boatbuilding and carpentry			15										17		13						23		11	
17.1002	Electricity													20		11									
17.100301	Heavy equipment maintenance			11																					
17.1004	Masonry													16											
17.1300	Drafting					(1)								9	1	9	1								
17.1401	Industrial electricity					49		16										22		14					

See footnotes at end of table.

VTI ENROLLMENTS—1972-73—Continued

Code	Course	KVVTI Freshmen M	KVVTI Freshmen F	KVVTI Seniors M	KVVTI Seniors F	CMVTI Freshmen M	CMVTI Freshmen F	CMVTI Seniors M	CMVTI Seniors F	EMVTI Freshmen M	EMVTI Freshmen F	EMVTI Seniors M	EMVTI Seniors F	NMVTI Freshmen M	NMVTI Freshmen F	NMVTI Seniors M	NMVTI Seniors F	SMVTI Freshmen M	SMVTI Freshmen F	SMVTI Seniors M	SMVTI Seniors F	WCVTI Freshmen M	WCVTI Freshmen F	WCVTI Seniors M	WCVTI Seniors F
17.1503	Radio and TV													15		12		22	1	9					
17.1900	Graphic arts					18	3	12	2																
17.2200	Marine technology																	44		30					
17.2302	Machine tool					27		26		21		15						24		13					
17.2305	Sheetmetal													9		6									
17.2800	Wastewater technology																	38							
17.2902	Culinary arts																	51	14	22	3				
17.9900	Plumbing and heating													10		11									
	Total	8	1	42	20	160	42	93	2	274	75	130	19	163	65	110	31	429	28	214	9	91	15	31	

[1] Central Maine VTI:
Process control combined with industrial electricity, therefore their second year students are added on to I.E. second ynar.
Machine drafting combined with machine tool, therefore their second year students are added on to M.T. second year students.

Washington County VTI:
Project Salvo—15 male and 7 female juniors. 12 male and 14 female seniors.
Handicapped (first year)—17 males and 2 females.
Quoddy Head Disadvantage Project—46 males.

ENROLLMENTS—VOCATIONAL-TECHNICAL INSTITUTES

	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Southern Maine Voc.-Tech. Inst.	311	392	380	449	423	525	582	601	678	586	782	680
Northern Maine Voc.-Tech. Inst.			78	134	168	226	226	250	285	319	353	369
Central Maine Voc.-Tech. Inst.				48	103	140	182	258	265	265	286	297
Eastern Maine Voc.-Tech. Inst.						103	197	257	316	307	374	498
Washington County Voc.-Tech. Inst.									7	45	90	137
Kennebec Valley Voc.-Tech. Inst.										27	96	71
Portland School of Practical Nursing									44	48	52	57
Waterville School of Practical Nursing									40	47	34	43
Washington County VTI—special programs:												
Project Salvo												48
Handicapped (first year)												19
Quoddy Head Disadvantaged Project												46
Total	311	392	458	631	694	994	1,187	1,366	1,635	1,644	2,067	2,265

d. Disadvantaged Students

In keeping with Maine's objectives of providing vocational education for all citizens, programs for the disadvantaged are directly aimed at identifiable needs in low income and depressed areas of Maine as identified by the Maine state plan for vocational education. There are 36 vocational programs for the disadvantaged currently in operation, and 5 new programs are in developmental stages. Some are prevocational in nature, whereas others are meeting the vocational needs of students who have fallen behind grade level in regular vocational education programs.

There are 36 full-time teachers, 16 part-time teachers, 2 teacher aides, and 1 regional coordinator that have provided services to 3,650 persons in Maine's federally funded programs for the disadvantaged. Diversified programs are needed for serving disadvantaged persons: Remedial education, counseling, placement, followup, and other services of a more traditional nature are therefore provided for students who can benefit from them.

An experiment was begun in August 1972, to test a new concept in services to the disadvantaged. A regional placement and followup coordinator was employed to provide additional services to Aroostook County, services designed to help the student, the employer, the teacher, and the administrator.

In addition to the 36 programs previously mentioned, opportunities have been provided for students from low-income families, allowing them to attend postsecondary vocational programs. When remedial aid is needed to help students succeed in these postsecondary programs, provisions are made as a part of the student's curriculum. Programs for the disadvantaged are constantly reviewed. There are 31 that have received pre-evaluations in order to clarify their functions in terms of the persons they serve. These preliminary evaluations have pointed out the need for prevocational education (in many of the geographically isolated areas), and for an increase in remedial services at all levels of education, including career counseling, placement, followup services, dissemination, local evaluation, and inservice education for the total staff within a given school district.

Three statewide inservice workshops and one local school interdisciplinary workshop have been completed, and two local school workshops are in the planning stages.

One guide entitled, "I CAN-Ideas for Teachers," is now being printed. These ideas were provided by Maine teachers, who have used them in their classrooms.

e. Handicapped Students

Handicapped programs, utilizing vocational education funds under part B of the Vocational Education Act as amended in 1968, were started in Maine in fiscal year 1969–70. Hence, data for 1963 and 1968 is obviously not available.

At the present time, fiscal year 1972–73, there are 17 programs taught by 24 teachers involving 429 handicapped students. There are new programs at Calais, Bangor, Fort Fairfield, and Fort Kent. All have received planning grants and are in operation. The projected handicapped student enrollment for 1976–77 is 530.

Eight programs for the handicapped have been in operation for three or more years; five programs have been in operation for three or more years: five programs have been in operation for two or more years, and four programs began in September, 1972.

Maine's vocational programs for handicapped students are reviewed annually. Eight programs have been reviewed this fall. All 17 programs will be given a preevaluation by members of the staff for the bureau of vocational education.

A handbook entitled "Handbook for Vocational Programs for the Handicapped" is now available to assist teachers and administrators in the development of vocational programs for the handicapped. A booklet is being planned by this bureau to help interested persons understand the design and content of each vocational program for the handicapped. This booklet will include the names and addresses of the project directors.

During the past 6 months, two workshops were held in conjunction with the workshops for the disadvantaged. One was concerned with individualized instruction, the second with educational media. The previous spring 11 teachers of programs for handicapped persons were involved in a followup study presented by Amids (Area Manpower Institute for Development of Staff) of the educational curriculum project held in Providence, R.I.

f. Adults

Introductory Comments

Adult education funds during the past 10 years have maintained a basic criteria of either retraining activities or supplemental activities. The emphasis has been on supplemental training activities. Therefore, the following analysis shows limited activities in retraining but a heavy emphasis on the supplemental activities. The information collected in adult education dealt with enrollment figures and not categorization of persons and whether they were unemployed or employed and in need of retraining, but rather, whether they were employed and in need of supplemental training. Therefore, the figures are estimates.

Year	Persons unemployed	Persons employed, needing retraining	Persons employed, employed, supplemental
1963	0	(1)	400
1968	0	(1)	600
1972	0	(1)	10,000
1977	1,000	(1)	20,000

[1] Not available.

g. Financing (i)

Overall State Matching

The State board shall allocate Federal funds allotted to it under part B of the act among local educational agencies in a manner as to:

1. Fulfill (a) statewide matching requirements, (b) maintenance of effort requirements, and (c) reasonable tax effort requirements of the act.
2. Maintain compatibility with (a) the long-range objectives set forth in the State's long-range program plan, (b) the estimated allocation of funds to program purposes as set forth in the State's annual program plan.
3. Eliminate matching of local expenditure at a percentage ratio uniform throughout the State.
4. Follow a procedure identifying criteria established by the act for determining how Federal funds will be allocated among the local educational agencies.

Reasonable Tax Effort

The State board hereby assures that a local educational agency which is making a reasonable tax effort will not be denied funds solely because it is unable to pay the non-Federal share of the cost of a program. A reasonable tax effort is determined by dividing the total State evaluation by the total average resident pupils annually. The average per pupil valuation thus determined shall be applied to a table of this section of an act (Title 20, Section 3457, R.S. as amended) which shows State valuation per resident pupil.). Data concerning State property valuation (local wealth) is updated each biennium.

The reasonableness of tax effort considered by the State board is found in the tax effort index as applied in the formula for determining allocation of funds to local educational agencies.

Criteria for Determining Relative Priorities of Local Applications

This section identifies the criteria to be used by the State board to determine the relative priority of local applications for providing vocational education programs, services and activities.

Manpower Needs and Job Opportunities

In allocating funds among local educational agencies the State board will give due consideration to information regarding current and projected manpower needs and job opportunities, ongoing, new, and emerging needs and opportunities, and will be identified using the following methods.

1. Local surveys shall be conducted.
2. A 5-year plan shall be developed indicating manpower needs, job opportunities, and vocational education needs of potential students.
3. Periodic evaluations of placement and followup of students shall be conducted by the local educational agency, and submitted to the associate commissioner. This data will provide a basis for program modification, expansion, or eligibility for reimbursement purposes.
4. Information received from the Maine Employment Security Commission, through its local offices, will be analyzed and used in determining long-range and annual program goals.

5. The department of economic development and other State agencies will be consulted.

6. Local and State leaders of trade (occupational) organizations and labor unions will be consulted when program planning involves their interests.

Vocational Education Needs

In allocating funds among local educational agencies the State board will give due consideration to the relative vocational education needs of: (1) Persons in high school, (2) disadvantaged, (3) handicapped, and (4) adults. Persons who have completed high school and who are available for full-time study are the responsibility of the State board of education and private educational agencies.

Information collected on the local educational application will be used to supplement the facts presented. Said information will also be used to determine relative priority for each instructional program. The formula found in this section will be applied to each local application. Yearly evaluation by the local educational agency is a requirement for program approval and the results will be used to modify, expand, or phase out a specific program. Other information will be used as reported yearly by the bureau of educational management resources, State department of educational and cultural services.

The State board will give particular consideration to additional financial burdens which may be placed upon certain local educational agencies by the necessity of providing vocational education students with special education programs and services, such as compensatory or bilingual education, which are not needed in areas or communities served by other local educational agencies in the State. The application form will provide this information.

Relative Ability to Provide Resources

In allocating funds among local educational agencies supported in whole or in part by local tax revenues, the State board will use the method and procedures in title 20, section 3457 of the revised statutes as amended (construction projects for State support) to determine the community's relative ability to pay. This method is analyzed at each biennial session of the legislature. Another criterion will be the designation of economically depressed or high unemployment areas. These areas will be identified by the Maine Employment Security Commission, the U.S. Secretary of Commerce, and/or the Economic Development Administration.

Relative Costs of Programs, Services and Activities

In allocating funds among local educational agencies, the State board will give due consideration to the costs of the programs, services, and activities these local educational agencies provide which are in excess of the costs which may be normally attributed to the cost of education in such local educational agencies. In determining the relative priority of local educational agencies in terms of costs of education, the State board will give primary consideration to the amount expended per pupil which is in excess of the previous year's State average operational expenditure (per pupil costs).

Other factors include:

1. differences in the cost of materials and services;
2. differences in the amount of excess costs due to supplying special services which are not usually part of the cost of education provided by other local educational agencies in the State.

The State board will give due consideration to the section of the annual application which will include:

(*a*) grade levels or populations group being served.
(*b*) per pupil cost of pragrams, services and activities.
(*c*) local—in kind—services not normally provided by other local educational agencies.

Information concerning comparative costs will be obtained annually in the local plan for vocational education.

Other Criteria of the State

The State board is required by law to fullfill the obligation incurred in compliance with title 20 of the revised statutes 1964, as amended, section 1256-A-H (regional technical-vocational centers). State funds, and Federal funds if available, will be allocated when the criteria listed is used to determine the relative priority of these local educational agencies applications. A separate and different local application will be used by the State board to fullfill the requirements of this section.

Application of Criteria in Determining the Relative Priority of Local Applications

The chart which follows indicates a method to be used to apply the criterion established in determining the relative importance and weight of each of the criteria.

Factor I includes weighted values for manpower needs and job opportunities, vocational education needs, and excess costs. To be considered for Federal funding, a local educational agency must have at least 10 points in factor I. Factor II is the community's relative ability to pay. The total of factors I and II is added to arrive at a total point value for each local educational agency. The total point value of each local educational agency is then added to arrive at a grand total. The grand total is divided into the amount of Federal dollars available, to arrive at a constant which is then applied to each local education agency.

Method and criteria for determining relative priority of applications

A. Manpower needs and job opportunities, weight value applied by State 0-10

The annual application will indicate occupational projections in terms of manpower needs and job opportunities on the local level. State and regional projections will be assessed by the State Director of Vocational Education.

B. Vocational education needs, weight value applied by State 0-20

The weight value will be determined using a scale based on the percentage of June 1969 graduates who did not enroll in an institution for further education. (Source—Bureau Research and Statistics, Maine Department of Education)

Percentage—	100	90	80	70	60	50	40	30	20	10	0
Weight value—	20	18	16	14	12	10	8	6	4	2	0

C. Excess costs, weight value applied by State 0–10

The previous year's State average operational expenditure (per Pupil cost) will be used as a base. Each $40 expended in excess of the average per pupil cost expended will warrant a value as shown. (Source—Division of Administrative Services, Maine Department of Education)

Example:—653 693 733 773 813 853 893 933 973 1,013
1966–67
average— 0 1 2 3 4 5 6 7 8 9 10
expenditure.
$653

A plus B plus C will equal the total weight value assigned to a local application. This is Factor I

D. Relative ability to pay

The several towns, cities, and school administrative districts are divided into 21 classifications according to their valuation (State) per resident school child being educated at public expense. The State valuation per pupil and the average reimbursement is set by statute at a minimum of ⅓ of the operational cost. Using a table lists which the classification, the percentage of State aid will be utilized as Factor II.

E. Maintenance of effort

Each local educational agency shall not reduce local funds for programs, services, or activities.

(ii) The largest city in Maine has a population of 70,000 (does not apply).

h. Construction and Equipment

CONSTRUCTION COSTS

Year	Federal	State	Local
1963		450, 000	
1964		640, 000	
1965			
1966	150, 000	650, 000	
1967	150, 000		
1968	240, 000	3, 000, 000	500, 000
1969 to 1972	1, 000, 000	8, 000, 000	2, 000, 000
Projected 1973 to 1977		20, 000, 000	5, 000, 000

Note.—All cost of construction for regional technical vocational centers is shared by State and local systems on a 75 percen—25 percent basis. The State and local systems will be investing approximtely $10,000,000 to expand high school vocationa education over the next 5 years.

PUBLIC LAW 90–576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

A variety of programs and projects have been funded by the research coordinating unit, bureau of vocational education. In selecting and reviewing potential projects the research coordinating unit utilizes the Maine State plan for vocational education as a guide. All priority areas are identified after careful review of local needs and screening of input offered by bureau consultants that is, home economics. The research coordinating unit seeks to fund programs and projects that are responsive to the needs of Maine citizens. The following are some of the projects in operation in 1972:

1. *Consortium in Higher Education*, University of Maine Augusta (part D). The purpose of this consortium is to provide extended guidance and counseling services for students enrolled in programs at a vocational and technical institute or on a university campus. The consortium counselor travels between the various institutes to provide services for those students who have changed their educational plans. Number of students served: *288*

2. *Occupations Course in Modern Practices.* SAD No. 27. Fort Kent (Part D). Students in this course are being trained and actual work experiences as related to the lumbering industry. Conservation practices and methods are a unique portion of this training program. A job placement component is being developed to support the student job search upon completion. Number of students served: *20.*

3. *Cooperative Concept of Career Education*, Millinocket School District, (part D). An expanded cooperative education program is being designed and researched to develop a new model for cooperative education between industry and the school. The project is attempting to assess the effect upon employer attitudes toward cooperative education when they are reimbursed for hiring a student. Number of students served: *60*

4. *Independent Living*, Hampton Academy, Hampden (part D). This project is a cooperative venture between home economics, social studies, and business education, to prepare students for successful transition from school to work and living. The program is not limited to any unique segment of the school population but is an integrated effort to involve any seniors who are interested and desire to enroll. Number of students served: *57*

5. Coastal opportunities in vocational education. SAD No. 40 Waldoboro (pt. D). The purpose of project COVE is to provide career orientation for elementary and secondary students in marine agriculture, horitculture, and greenhouse management. A basic ingredient of this program will be the use of an outdoor classroom in marine science and aquaculture.

Number of students served in 1972: 100.

6. Career education program for a rural school, Hermon Elementary School, Hermon (Pt. D). The purpose of this project is to help students develop attitudes and awareness of occupations available in their community. In addition students will relate good health habits and nutrition as they affect living in a community.

Number of students to be served: 50.

7. Mobile career education classroom, Kenneth Foster Regional Vocational Technical Center, SAD No. 9, Farmington (Pt. D). The purpose of this project is to construct a mobile career education classroom to serve 3,400 students in grades K–12 within a geographical diffuse school system. The mobile career education classroom will provide many courses and career information to students in rural areas.

Number of students to be served: 3400.

b. Residential Vocational Education

No residential vocational education facilities will be requested in this State during the next 5 years. We feel shop and laboratory facilities have a higher priority.

c. Consumer and Homemaking

Great emphasis has always been placed on consumer education and family life in the consumer and homemaking curriculum. The major concern to many of us was that not enough students had the opportunity to take advantage of the offerings, particularly in low-income and depressed areas.

This is no longer true. With the development of school administrative districts, many more students are being served that had never had home economics before—boys and girls. Some of the most outstanding programs and teachers are located in the so-called "depresed areas."

Rate of growth is indicated by the necessity to increase the home economics staff in several schools.

The implementation of semester and mini courses has swelled the enrollments in home economics classes with consumer education and family life (often mixed—boys and girls) as two of the most popular selections.

The addition of a mobile unit in one of the most isolated, depressed communities in the State has opened the doors of consumer and homemaking education to students from the 4th–12th grades. Seven adult programs serving primarily the low-income group were offered during 1972–73. Approximately 100 men and women participated in consumer education and family life courses.

A program for senior citizens in a depressed county was sponsored by the consumer and homemaking consultants for the purpose of providing helpful information on consumer and health problems. We see tremendous expansion of consumer education and family life education in our communities serving all income levels from the kindergarten through adult life.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	Projected 1977		Projected 1977					
			Part F—Consumer homemaking			Part B—Occupational home economics		
	Home economics useful employment (homemaking)	Home economics gainful employment	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	9,100	800	135	85	50			
Adult			150	150				
Total	9,100	800	285	235	50			

COOPERATIVE VOCATIONAL EDUCATION

Year	Number of programs		Number of persons	
	Federal funds	State-local funds	Federal funds	State-local funds
1963	4 (part 3)	(4)	150	(150)
1967	10 (part B)	(10)	350	(350)
1972	12 (part B), 32 (part G).	12 part B with local match.	1,000	300
1977	60	60	2,500	2,500

e. Work-Study Programs

Number of students served by the vocational work study program for fiscal years 1968, 1972, and 1977, as projected:

1963—N.A.
1968—74.
1972—218.
1977—250 projected.

In fiscal year 1968, work-study funds were made available to the postsecondary vocational technical institutes and to local school systems. At the VTI's funds were made available for students to work at the institute which allowed them to earn additional money to help pay the cost of their education. At the secondary level, funds were provided for students during the school year and for special programs operated during the summer months. This gave needy students an opportunity during the school year to earn a small sum of money each week. During the summer months, funds were provided for full-time employment to deserving high school students.

In fiscal year 1972, all work-study funds were allocated to the six vocational technical institutes. These funds were used by each institute to provide employment opportunities for full-time students to work at various jobs at the institute. Many of these students would not have been able to carry on their education if they had not had the opportunity to earn a small income through the work-study program. This was also true with the work-study program at the secondary level.

At the present funding level our estimate of individuals to be served in fiscal year 1977, is 250.

Directors at the postsecondary level feel that the work-study program is of great value, not only to the students in providing them a source of income to carry on their education, but also to the institute in its efforts to provide satisfactory janitorial services and overall maintenance for the school, including grounds and other services provided by work-study students.

f. Research and Training

Research—part C: The use of part C research funds has enabled the research coordinating unit to initiate 10 projects both at the local and university level. They have generated baseline data for vocational-technical planning. For example, the survey instrument for followup of vocational-technical institute graduates, is generating a procedure for use by other schools in evaluating their programs. It is expected that the research projects in progress will provide professional educators data for designing and/or revising the offerings currently available in our schools. The lack of State committed research funds has resulted in extreme pressure from various school personnel for our limited research monies under part C. It is extremely important that increased efforts be made in the area of basic research so that Maine will be able to improve the quality of education offered its citizens.

The following projects were funded under part C research in 1972: Career transition study, University of Maine, Orono—part C. The purpose of this study was to determine the problems encountered by adults 18–21 in transition from school to work. A model for specific counseling procedures to facilitate this transition was developed.

A study of the effects of a planned program of educational-occupational information on knowledge, aspirations, and self-image of elementary school children, John R. Graham school, Veazie—part C. The purpose of this project was to assess the impact of career information on children's knowledge of occupations, changes in level of aspiration, and changes in self-image. A prepost-test experimental design was used in this particular study.

STATE ADVISORY COUNCIL

The primary duty of the Maine Advisory Council on Vocational Education is to advise the board of education on the development of the State plan, including the preparation of long-range and annual program plans. A corollary duty is to advise the board on policy matters arising in the administration of the State plan.

Each year, the council, in conjunction with the board, prepares a report evaluating the effectiveness of vocational education programs, services, and activities in meeting the program objectives set forth in the long-range and annual program plans. This report is submitted to the commissioner and the National Council on Vocational Education.

In addition to these duties, the council has been working towards establishing a good public relations program for vocational education in the State. The council, which meets monthly, has produced a series of films designed to make Maine citizens aware of the opportunities available to youth and adults in vocational education. These films describe the function of vocational education in the vocational technical institutes and the regional technical vocational centers.

Several actions have been taken in response to recommendations made by the Council. They are as follows:

Extended every effort within available resources to make possible enrollment at several points in the year at all postsecondary vocational technical institutes.

Scheduling of programs on a year-round basis and we have made a request in our budget that all technical institutes operate on a year-round basis.

Greater coordination between secondary and postsecondary vocational-technical education programs and activities.

SUMMARY AND RECOMMENDATIONS

In summarizing, may I say that Maine has made great efforts to fund vocational education adequately at the State and local levels since the passage of the Vocational Education Act of 1963, and the Vocational Education Amendments of 1968. As stressed earlier in the report, in 1962, approximately $800,000 was spent on vocational education programs. Today, Maine is spending approximately $14 million annually for this type of education. Maine's tax burden is heavy, and we need additional funds from the Federal Government to help vocational education to continue to grow. Maine has identified many more individuals between the ages of 14 and 65 who could benefit from these services, so we recommend to you that the Federal Government accept the challenge to provide additional funds for vocational education in Maine.

MARYLAND

State Director—James L. Reid

INTRODUCTION

Total Enrollments in Vocational-Technical Education

Total vocational-technical education enrollments in the State of Maryland are as follows:

Fiscal year:	*Enrollments*
1963	32,276
1968	159,846
1972	215,314
1977	236,845

a. Job Training Enrollments (part B only)

Job training enrollments in programs funded with part B funds:

	1963	1968	1972	1977
Secondary	12,157	85,196	79,968	87,964
Postsecondary	461	7,445	19,522	21,474
Adult	7,856	36,327	22,276	24,503
Total	20,574	128,968	121,766	133,941

b. General Description

There has been an overall increase of about 150 percent in the number of persons served in vocational education programs from fiscal year 1963 to the present. Today, 16 community colleges and 195 secondary schools house approved vocational programs designed to meet students' needs.

Some programs developed to meet demands of the newer job fields include: A family aide program to train paraprofessionals to assist low-income families in Appalachia Maryland; pollution abatement technology; a program to train paraprofessionals as debt, nutrition, and medicare counselors, etc.

The manpower development and training unit continue to focus its efforts on training disadvantaged, unemployed and underemployed persons in order to make them employable in skill shortage occupations.

c. Postsecondary Courses

Enrollment in postsecondary occupationally-oriented (vocational-technical) programs has increased approximately 620 percent over the 6-year period 1967–73. This sharp increase in full-time and part-time students is the result of both an increase in the number of community colleges and the total number of programs available to State students. The following table summarizes the 1967–73 data:

	Number of community colleges	Number of programs	Total number of students
Fall 1966	11	67	2, 973
Fall 1972	16	215	18, 459

d. Disadvantaged Students

Approximately 15 percent of all Maryland families have an effective buying power under $3,000 annually. In addition, it has been estimated that the civilian labor force contains in excess of 300,000 persons with less than a high school education. Specific groups within the disadvantaged population requiring services have been identified through interagency cooperation and will continue to receive priority attention. Additionally, emphasis has been given to the development of programs for persons from low-income families, dropouts, and individuals in correctional institutions.

	1963	1968	1972	1977
Regular programs	(1)	(1)	26, 335	28, 968
Special needs		1, 192	6, 528	7, 180

[1] Data not available.

e. Handicapped Students

Since fiscal year 1971, several mobile units have been in use for the purpose of evaluating the vocational potential of handicapped and disadvantaged youth. Information and recommendations from these evaluations have been used successfully to establish priority programs to meet these students' needs. Much attention has been focused upon the task of analyzing the job market to determine the kinds of jobs available for handicapped workers. Also, a team approach has been used in the development of curriculum and instructional materials to meet the individual vocational needs of handicapped persons.

HANDICAPPED STUDENTS

	1963	1968	1972	1977
Regular programs	(1)	(1)	5, 392	5, 931
Special needs		(1)	2, 516	2, 767
Total			7, 908	8, 698

[1] Data not available.

f. Adults (part B only)

The following table summarizes the 1963–77 data:

Enrollment	Fiscal years			
	1963	1968	1972	1977
Vocational-technical education[1]	20, 506	8, 598	22, 276	24, 503
Manpower[2]	353	1, 464	2, 566	2, 500

[1] All approved adult programs are supplementary, rather than preparatory.

[2] This does not include national contracts in which we do not have involvement. The above figures reflect institutional training only.

g. Financing

(1) Part B funds are distributed to the local educational agencies in Maryland by a formula (see attached detailed description from the Maryland State plan for vocational-technical education) that utilizes the following factors from each of the local agencies:

(*a*) Unemployment rate—most recent 12 month average provided by the State department of employment security.

(*b*) Dropout rate—reported annually to the Maryland State Department of Education by the local educational agency.

(*c*) Job opportunities (labor market needs)—manpower data from an analysis and projection study to 1980 of population, labor force, etc., developed by the division of Vocational-Technical education utilizing the U.S. Bureau of Labor Statistics matrix.

(*d*) Economically depressed areas—those designated by the Secretary of Commerce—information provided by the department of employment security.

(*e*) Expenditures per vocational students are compared with expenditures per all students to benefit the LEA for the excess costs of vocational education.

(*f*) Wealth per student—assessed value of real property plus net taxable income as reported by the State treasury department for each LEA is used to determine the ability to pay.

Value points are determined by statistical procedure (standard deviations converted to value scales) for each of the factors indicated. The sum of the value points are multiplied by the number of vocational students being served to determine the ratio to be applied to the funds available. The results of the calculation determines the amount of funds to be distributed to each LEA.

Baltimore City is the only area within the State that has a population in excess of 250,000. The city was allocated $1,528,860 of fiscal year 1972 funds or approximately 27 percent of Maryland's total Federal grant. Its population represents about 23 percent of the State's population.

St. Mary's and Somerset Counties represent the poorest rural areas. At this writing, these counties have reported expenditures as follows:

EXPENDITURES

County	Federal	State
St. Mary's	$63,584.00	$137,438.00
Somerset	137,438.00	62,797.70

St. Mary's County was allocated $105,617 of fiscal year 1972 funds, while Somerset's allocation amounted to $73,776.

Out of a total State population of approximately 3,922,000, St. Mary's has 47,388 and Somerset 18,924.

NOTE.—See attached copy of OE Forms 3131 and 3132 for Baltimore City marked exhibit B.

h. Construction

Investments for construction are listed below:

	1963-68	1969-72	1973-77
Federal	$5,044,674.00	$876,269.00	
State	11,679,001.36	21,372,973.50	11,300,000.00
Local	5,792,451.00	8,489,508.50	3,700,000.00
Appalachia	489,684.00	4,418,883.00	(1)
Total	23,005,810.36	31,180,624.00	[2] 15,000,000.00

[1] Unknown.
[2] Estimated.

It is estimated that between fiscal year 1973 and 1977, approximately 27 construction projects of area vocational schools on the secondary level will have been completed. These projects will involve remodeling, expansion, alteration and new construction.

On the postsecondary level, for the same period, a total of $2,771,000 is the estimated cost of providing for expansion of facilities at three community colleges.

a. Exemplary Programs and Projects

There were no exemplary programs in Maryland in fiscal year 1968.

This State has been a forerunner in the area of career education. A few milestones in its career education program are as follows:

(a) Maryland State Board of Education passed a resolution in October 1971 naming career education as one of the five major priorities in the State.

(b) The assistant State superintendent in vocational-technical education coordinated the major career education project for the United States Office of Education from August 1971 through May 1972.

(c) A Governor's conference on career education was held May 1972, followed by a State-wide conference on June 1972.

(d) In July of 1972 a task force was appointed to plan the State's career education program. A 5-year plan was formulated by the task force and it was officially approved by the Maryland State Board of Education this year.

(e) As of June 1972, 16 of the 24 LEA's plan major activity in career education within the next 2 years.

In fiscal year 1972 there were 10 exemplary projects funded which served over 20,000 persons. It is estimated that approximately 30,000 students will be served in 1977 and that 300,000 of Federal, State and local funds will be needed to support the programs.

b. Residential Vocational Education

The State forecasts a need for the provision for at least one residential vocational facility by 1976. If funds become available for this purpose, it is estimated that approximately 500 students with disadvantaged environmental backgrounds can be served.

c. Consumer and Homemaking

To meet the needs and interests of today's young people of all socioeconomic levels, programs in the upper four grades have been reorganized to provide a greater number of courses which vary in length, scope, depth, and sequence. This multi-organization approach has enabled more students to enroll in homemaking courses than was possible under the traditional structure.

The vast majority of the local educational agencies in Maryland continue to give special emphasis to consumer education. Some consumer programs which have made a difference are:

(*a*) Paraprofessional debt, medicare medicade counselors (a research project)—Dundalk Community College

(*b*) Consumer education for senior citizens—Dundalk Community College

(*c*) Consumer seminars for adults—College of Notre Dame and Dundalk Community College

(*d*) Family aide program—Appalachia

(*e*) Program for disadvantaged adults—Baltimore city

Results of a consumer education survey recently conducted by the State specialist in consumer and homemaking education revealed that home economics alone provides nearly full coverage of all consumer education concepts in Maryland.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	4,757	18,619	....	81,015	80,368	1,592	3,500	489	232
Adult	....	12,000	....	12,533	11,338	41	315	82	....
Total	4,757	30,619	....	93,548	91,706	1,633	3,915	571	232

d. Cooperative Vocational Education—Part G

Special attention has been given to the provision of cooperative education programs for all persons desiring such instruction with particular focus on the development of programs in areas of Maryland which include large numbers of disadvantaged youth as evidenced by high dropout rates and characterized by high unemployment in the 15–19-year-old age range.

Participation in the State's cooperative program is as follows:

	Enrollments
1963	-----
1968	694
1972	1,592
1977	1,900

e. Work-Study Programs

Maryland's work-study programs have been focused in the area of greatest need and where the resources available have maximum effect on disadvantaged secondary youth. Students are provided summer work opportunities which are related to training each is receiving in his or her occupational program. This program, in addition to providing students with needed income, also provides incentive to continue in school and full competition of the occupational program.

Part H enrollment data for fiscal years 1963, 1968, 1972, and 1977 (projected) are as follows:

Fiscal years:	*Number of students served*
1963	—
1968	635
1972	350
1977	1, 000

f. Research and Training

Availability of part C funds has been invaluable to the State in providing for the development of research and training projects. Two research projects worthy of mention are:

(1) Research and development of a computer-assisted instruction center for post-secondary vocational projects—this is an on-going and comprehensive research program at the Charles County Community College for research and development of programs for postsecondary educational needs. The potential of computer-assisted instruction as a tool and technique for aiding the vocational student in meeting his career goals is being explored.

(2) Paraprofessionals as debt, nutrition, and medicare counselors: A study in effectiveness.

The purpose of this project is to ascertain whether paraprofessionally trained debt counselors, nutrition aide counselors, and medicare and medicaid aide counselors can serve a real social need.

Participants in the training program are selected on the basis of age, education, and occupational interests. The training program itself is concerned with three specific areas: resources, how to deal with people, and crisis handling.

STATE ADVISORY COUNCIL

The State Advisory Council provides the opportunity for lay people to participate in the development of the goals, objectives, and activities of the Maryland State Plan for Vocational-Technical Education.

Each year, recommendations from the Advisory Council are carefully considered and incorporated in the State Plan for Vocational-Technical Education.

SUMMARY

Development and expansion of vocational education within the State would not have been possible without the support of the legislature, the State Board of Education, and the State Administration. Categorical aid through Federal Vocational Funds have certainly served to help develop programs to redirect educational needs. As evidenced by the annual financial reports submitted to the U.S. Office of Education each year, State and local governments have, over the years, assumed a major share of the cost for program development.

If we are to continue to progress towards the goals established, an increasing amount of Federal funds will be required to deliver the vocational services so vitally needed for social and economic change.

RECOMMENDATIONS

1. Provide immediate full funding to the States at the beginning of the fiscal year in order to facilitate planning and implementation of vocational education programs.
2. Initiate planning to determine the Federal share of investments necessary to use vocational education for social and economic change.

3.25 Matching.

3.25–1 Overall State Matching:

a. Federal funds will be allocated to local educational agencies in a manner which will result in at least one dollar of State and local funds being expended for each dollar of Federal funds expended under the State Plan for vocational education programs, services, and activities under Part B of the Act, but not in a manner which requires local educational agencies to match Federal funds at a percentage ratio uniform throughout the State.

b. The allocation of Federal funds to local educational agencies will be pursuant to the Act 124(a) and 123(a)(6)(E) and Rules and Regulations 102.52, 102.132(a), and 102.133.

c. See paragraph 3.27 of Part 1.

3.25–2 Reasonable Tax Effort:

a. No local educational agency which is making a reasonable tax effort, as determined pursuant to paragraphs b. and c. below, will be denied funds for establishing new vocational education programs solely because it is unable to pay the nonfederal share of the cost of such programs.

b. The tax effort of a local educational agency shall be represented by the ratio between the total annual revenues available to the agency for educational purposes and the total wealth of the local area or community served by the agency (calculated on the basis of assessed valuation of real property and net taxable income). In computing local tax effort the State may use whatever means it considers fair and equitable including reference to an existing tax effort index to all local educational agencies in the State.

c. A local educational agency's tax effort shall be coinsidered reasonable whenever it is equal to or greater than the State average tax effort. The State average tax effort shall be represented by the ratio between the total annual revenues available to all local educational agencies in the State for educational purposes and the total aggregate wealth of areas and communities served by all local educational agencies in the State.

d. Each local educational agency in Maryland will receive each year an amount of funds known as "State share of current expenses." These funds are based on a percentage of the adjusted assessed valuation of real property and net taxable income for each of the several counties and Baltimore City.

(1) To be eligible to receive the State share of current expenses, the board of county commissioners or the county council of each of the several counties and the Mayor and City Council of Baltimore shall levy an annual tax sufficient to provide a minimum amount per pupil as prescribed by the Public School Laws of Maryland, 1968 Cumulative Supplement. (Article 77, paragraph 220).

(2) The "adjusted assessed valuation of real property" shall be as reported by the State Department of Assessments and Taxation as of July 1 of the first completed fiscal year preceding the school year for which the calculation of State aid is to be made, plus 50 percent of new property assessed between July 1 and December 31 of such completed fiscal year.

(3) The tax effort considered reasonable and which meets the minimum requirements in an amount equal to 1.228 percent of the sum of the adjusted assessed valuation of real property and net taxable income for each of the several counties and Baltimore City, exclusive of the amount levied for debt service or capital outlay for public schools.

(4) The reasonableness of a local education agency's tax effort is determined by the extent to which it provided a minimum dollar amount per pupil.

(5) See paragraph 3.27 of Part 1.

3.26 Criteria for Determining Relative Priority of Local Applications

3.26-1 Manpower Needs and Job Opportunities:

a. Manpower needs and job opportunities will be identified, pursuant to paragraph 3.1 and 3.14 of the State Plan, by information provided by the Maryland Department of Employment Security and other agencies or organization having such available information, including the local educational agency.

b. Information regarding current and projected manpower needs and job opportunities will be incorporated into the long-range program plan. Efforts will be made to encourage the development of, and to support, programs designed to fulfill these needs and opportunities by planning for vocational education programs in such areas.

c. The results of periodic evaluations of State and local vocational education programs and services in light of information regarding current and projected manpower needs and job opportunities will be used as one of the determining factors in the approval of local applications and the allocation of funds.

d. Not applicable.

e. Sources of information concerning manpower needs and job opportunities other than those described in paragraph a. above may include agencies or organizations such as the Maryland State Planning Department, the Department of Economic Development, the Chamber of Commerce, the local educational agencies, and such other persons or groups having specific knowledge of needs and opportunities that could be related to vocational education. Such information will be obtained through the procedures developed to determine long-range and annual plans at the State and local levels. Such information will be revised and updated as the information becomes available, at least annually.

f. See paragraph 3.27 of Part 1.

3.26-2 Vocational Education Needs:

a. The relative vocational education needs of all the population groups referred to in paragraph 3.15 of this part will be given due consideration in determining the allocation of funds among the local educational agencies pursuant to paragraph 3.27 of Part 1.

b. The vocational education needs will be determined for purposes of allocation of funds in each of the local educational agencies and institutions by the following factors:

(1) Dropout rate
(2) Unemployment rate
(3) Number of persons being served by vocational education programs, services, and activities
(4) Number of disadvantaged persons
(5) Number of handicapped persons.

c. Date for the above factors will be obtained from the records of the Maryland State Department of Education, the Department of Employment Security, the local educational agencies, and other sources.

d. Information and data concerning vocational education needs will be incorporated in the long-range plan and will be used as one of the determining factors in the development of long-range and annual plans for the maintenance, expansion and development of new vocational education programs, services, and activities.

e. The periodic evaluation of vocational education programs, services, and activities will consider the factors enumerated in paragraph b. above in the total analysis of the effectiveness of the various vocational education programs, services, and activities in meeting the vocational needs of persons to be served.

f. Additional information will be considered when it can be identified and becomes available. All data pertaining to vocational education needs will be maintained on a current basis and will be updated at least annually.

3.26–3 Relative Ability to Pay:

a. The relative ability of a local educational agency to provide the resources necessary to meet the vocational education needs in the areas or communities served by such agencies will be determined by a factor which considers the local appropriation per pupil as a percentage of the wealth per pupil.

b. The information upon which the above factor is based is as follows:

(1) Local base for State share of current expenses (assessed valuation of real property and net taxable income)
(2) Local funds appropriated for current expenses
(3) Number of pupils during the preceding fiscal year
(4) Appropriations per pupil
(5) See paragraph 3.25–2, and 3.27 of Part I

c. The information required to make the above determinations are provided annually by the Maryland State Department of Education, Division of Administration and Finance, and Division of Planning, Research, and Evaluation.

3.26–4 Relative Costs of Programs, Services, and Activities:

a. The relative costs of vocational education programs, services, and activities to costs of education will be determined by the relationship of the expenditure per pupil for vocational education to the expenditure per pupil for all education in each of the local educational agencies.

b. Differences between the various local educational agencies expenditure per pupil will determine the excess costs of education for one local educational agency as opposed to another.

c. The above factors will be utilized in the formulas described in section 3.27 as follows:

(1) Expenditure Per Pupil for Vocational Education=EP
(2) Expenditure Per Pupil for All Education=EA

3.26–5 Other Criteria of the State:

a. Criteria for determining the relative priority of local applications will be as described in paragraph 3.1 of Part I.

b. The method of using the criteria and the weighted relative importance of each of the factors are described in paragraph 3.27 of Part I.

3.27 Application of Criteria in Determining the Relative Priority of Local Applications:

a. The following procedures will be used to apply the criteria set forth in paragraphs 3.1, 3.23, 3.25, and 3.26 in the processing of local applications and the subsequent allocation of funds.

(1) Formula Development for P.L. 90–576. Distribution of Federal funds received by Maryland under P.L. 90–576 will include consideration of the following variables at the local level.

(a) Manpower needs and job opportunities.

Projected manpower needs and job opportunities (MO) for each local educational agency will be determined as described in section 3.26–1. Specific occupations in any local educational agency may be given priority by multiplying the need by any factor above 1. (such as MO x 3).

(b) Vocational education needs.

Vocational education needs will be incorporated in the applicable formulas for each local educational agency by the following factors:

i Dropout rate (DR) see section 1.10D
ii Unemployment rate (UR) see section 1.10D
iii Vocational enrollments (VE), (AEC), (HAC)
iv Number of disadvantaged persons (DOR)

v Number of handicapped persons (HC)
vi Economically depressed area (ED)

(c) Relative ability to pay.

The relative ability of the local educational agencies to provide the resources for vocational education programs, service, and activities will me incorporated in the formulas by the following factors:

$$\text{Wealth per pupil} = \left(\frac{AV+NTE}{E}\right) \text{ see section 3.26–3}$$

AV=assessed valuation of real property
NTE=net taxable income
E=enrollment

(d) Excessive costs.

Excessive relative costs will be incorporated in the formula by the relationship of the vocational education expenditures per pupil and the expenditures per pupil for all education in the local educational agencies. See section 3.26–4.

Vocational education expenditure per pupil=EP.

Expenditure per pupil for all education=EA.

(2) A model will be constructed to enable Maryland's vocational education programs to adjust the system, logic or weight of the variable with very little effort.

Public Law 90–576 identifies three major purposes for which a specified minimum amount of funds must be expended. However, other obligations of P.L. 90–576 introduce additional purposes into the model. The resultant portions into which the State's allocation are to be divided are shown in Figure 1.

(3) Development of a Common, Relative Scale.

Having identified the ten purposes in Figure 1, it is necessary to identify those purposes where a formula must be employed, and also to identify the characteristics or variables that must be included in each of the formulas according to the law itself and management considerations. Since it is highly desirable that the mathematical device used for every variable makes the comparison and resulting weight of each county or institution truly relative, a scale of points based on interpolated standard deviations and means was developed. A simple description of this device follows:

(a) For every selected variable used in computation of local allocations, the value for each county or institution on the one variable is included in the computation of the mean and standard deviation values representative of the applicants.

(b) The mean and standard deviations are computed and placed on a scale that would look like the one immediately following (assume, for illustration, a mean of 22 and standard deviation of 5):

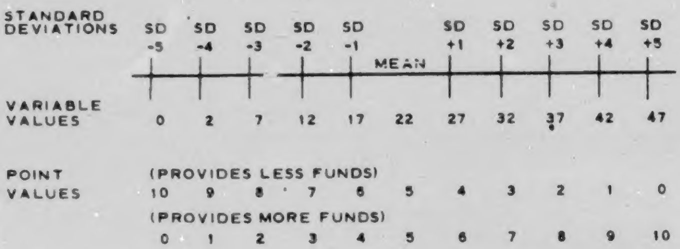
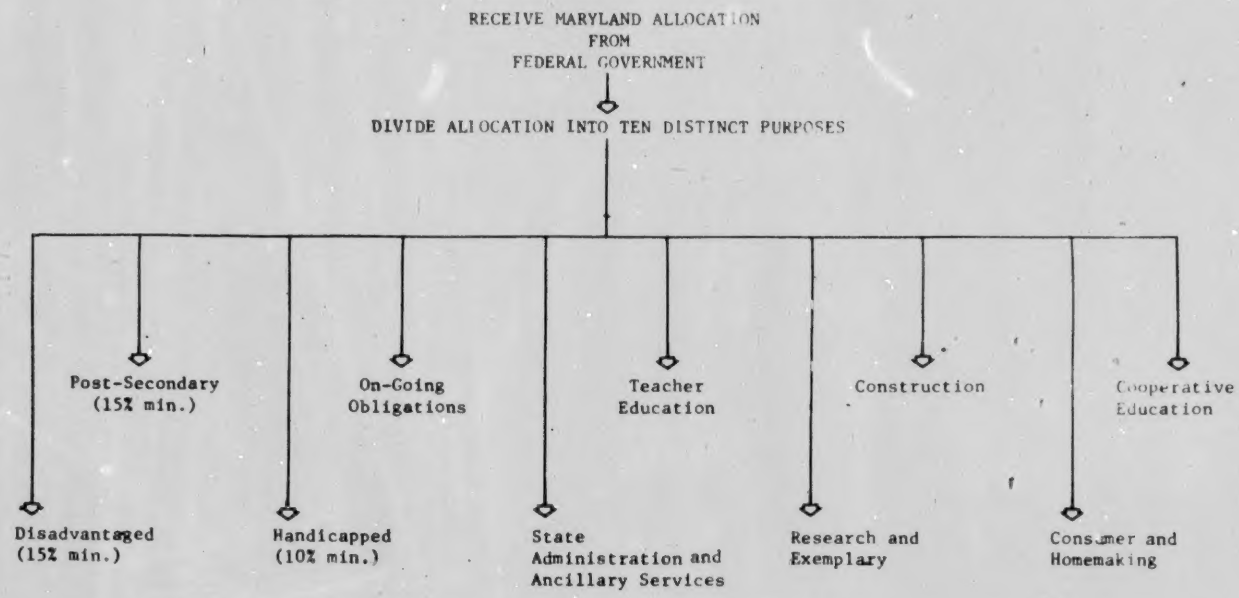


FIGURE 1

LOGIC FLOW FOR DISTRIBUTING FEDERAL FUNDS FROM P.L. 90-576


RECEIVE MARYLAND ALLOCATION
FROM
FEDERAL GOVERNMENT
DIVIDE ALLOCATION INTO TEN DISTINCT PURPOSES
Post-Secondary (15% min.)
On-Going Obligations
Teacher Education
Construction
Cooperative Education
Disadvantaged (15% min.)
Handicapped (10% min.)
State Administration and Ancillary Services
Research and Exemplary
Consumer and Homemaking

(c) By assigning point values to the standard deviations, a common rating scale can be developed for all variables as shown on the bottom line of the illustration above.

(d) If a higher value on the variable is to be considered reason to give less financial support to the local units, such as a high ability to pay, the points are numbered from right to left as shown above. However, if the higher value on the variable were deemed to be reason to give more financial aid, such as high dropout rate, the points' values would simply be numbered left to right. Unless the variable value equals the standard deviation value, an interpolation routine is employed to add accuracy.

(e) The point value for each local educational agency or institution are then inserted into the appropriate formula(s) which are developed hereafter. It is the formula that brings together the points earned on the several variables and enables them to be applied against the money to be allocated with the result that the counties or institutions each receive their proportionate share of the funds for the particular purpose, leaving no more than a fraction of a cent unallocated.

(4) Development for Formulas for the Various Purposes.

(a) Disadvantaged Formula: Variables relevant to the "disadvantaged" allocations of local educational agencies or institutions were identified as follows:

i Manpower need and job opportunities (MO)
ii Number of disadvantaged in the local educational agency (DR)
iii Wealth per student $\left(\frac{AV+NTE}{}\right)$
iv Dropout rate (DOR)
v Unemployment rate (UR)
vi Expenditure per pupil for vocational education (EP)
vii Expenditure per pupil for all education (EA)
viii Economically depressed area (ED)

Having identified the eight relevant variables listed above, each of them would be processed using the Common, Relative Scale described above. The resulting points for each variable are then substituted in the formula that follows. The formula is worked for every applicant to arrive at its total point value. Local educational agencies and institutions located in depressed areas receive 5 points for ED.

$$DR\left[\left(\frac{AV+NTE}{2}\right)+DOR+MO+UR+EA+EP+ED\right]$$

To differentially weight any of the factors in the formula, simply divide or multiply the factor to achieve the desired result.

(b) Post-secondary Formula: Factors to be considered in the post-secondary formula are arrived at according to the State Plan using data more suited to post-secondary expenses and problems.

i Manpower needs and job opportunities (MO)
ii Full time equivalent enrollment projected for coming fiscal year of students in vocational curricula (VFTE)
iii Receipts for current expenses per full-time equivalent students of entire college, projected (Table 6 of financial data) (CE/FTET)
iv Number of disadvantaged in the county per total population (DR)
v Wealth per student $\left(\frac{AV+NTE}{E}\right)$
vi Dropout rate (DOR)
vii Unemployment rate (UR)
viii Expenditure per pupil for vocational education (EP)
ix Economically depressed areas (ED)

$$VFTE\left[\frac{CE}{FTET}+2\ DOR+MO+\left(\frac{AV+NTE}{E}\right)+2\ DR+UR+EP+E\right]$$

Differential weighting can be accomplished by multiplying or dividing a factor to obtain the desired result.

(c) Handicapped Formula: This formula is similar to that suggested for the disadvantaged except that the number of handicapped per total local educational agency population (HC) is used in place of the disadvantaged rate (DR).

$$HC\left[\left(\frac{AV+NTE}{E}\right)+DOR+MO+UR+EA+EP+ED\right]$$

Differential effects can be achieved as described in each of the preceding formulas.

(d) Research and Exemplary Formula: In research and exemplary programs, the prime considerations are ability to pay and the number of people most likely to benefit from the programs. Priority problem areas are also a consideration. Therefore, the most logical approach to the problem of managing these funds is to arrive at a distribution, to invite proposals in priority areas, and then to select those projects from a local educational agency or institution that will contribute most to eliminating critical problems. The variables are:

i Wealth per student $\left(\frac{AV+NTE}{E}\right)$

ii Number of people served by the project (PS)

iii Any other of the variables as described in the formula for the disadvantaged if they are applicable to the project.

$$PS\left[PS+\left(\frac{AV+NTE}{E}\right)+(\text{OTHER VARIABLES})\right]$$

(e) Consumer and Homemaking Formula: The variables for this purpose are similar to those encountered in the Disadvantaged Formula, except that enrollment in the programs should be considered: for example, enrollments in the Homemaking and Consumer Education (HAC).

$$HAC\left[\left(\frac{AV+NTE}{E}\right)\pm DOR+UR+EP+\frac{EA}{2}+ED\right]$$

Differential weighting is accomplished as described above.

(f) Cooperative Education Formula: This formula is identical to that for Homemaking and Consumer Programs, except that anticipated enrollments in cooperative program (AEC) is substituted for (HAC) in the formula:

$$AEC\Big(\Big[\frac{AV+NTE}{E}\Big)+DOR+MO+UR+EA+EP+ED\Big]$$

Differential weighting is accomplished as described above.

(g) Other Distributions: On-Going Obligations, Construction, State Administration, and Teacher Education can be funded by setting aside sufficient funds to cover the obligations. On-Going Obligations can be eliminated in the future by not making new commitments or extending old commitments. Wherever possible, it would be desirable to fund the obligations from the normal allocation derived from the formula in paragraph (h).

(h) Remainder of Funds Applied to the Normal Support Effort: The following formula will be applied for all other programs under Part B in order to be consistent with the State plan:

$$VE\left[\left(\frac{AV+NTE}{E}\right)+DOR+MO+UR+EA+EP+ED\right]$$

Differential weighting can be accomplished as described above.

(i) Summarization and Extension of Formulas: Each formula, when all factors have been computed and substituted, yields a simple point value for each local education agency or institution. The ratio of the local educational agencies or institutions to the sum of all the local educational agencies is then multiplied by the amount to be distributed for the particular purpose and each of the county or institution amounts is generated.

$$\frac{\text{Particular Local Educational Agency or Institution Points}}{\text{Sum of all Points in all Local Educational Agencies or Institutions}}\times \text{Amount to be Distributed-Local Educational Agency Amount}$$

This list of amounts will total to the amount to be distributed for the particular purpose. Posting to accounts can be easily accomplished from this type of listing.

Each local educational agency or institution will be given current status of accounts reports by purpose and project, thereby keeping them alerted to deadlines and distribution dates and amounts.

MASSACHUSETTS

State Director—Charles H. Buzzell

INTRODUCTION

Since the last House subcommittee hearings in June 1971, the Massachusetts Division of Occupational Education has become fully operative on a management-by-obective system with strengthened financial reporting.

The objectives for 1972 were defined in terms of measurable results, programs monitored and evaluations reported periodically during the year. Under the reorganization structure of 1971, the division's managerial effectiveness became apparent in 1972.

The division has defined all bureau programs by quantified accountable objectives and identified the services and activities in vocational and technical education to be provided for the youth and adults of the Commonwealth. These quantified program objectives are translated into financial statements with budgetary items based upon annual and long-range projections.

The impact of the Vocational Act of 1963 and amendments of 1968 in the State of Massachusetts through the release of Federal moneys is readily evident. The clearly stated intent and purposes of the acts and the well-defined Federal regulations have served as a guide to long-range and annual planning. Federal allocations maintained by the State educational agency have allowed the State agency to supply leadership and direction to local educational agencies in their efforts to develop programs consistent with their local needs, and allowed the State educational agency to set priorities consistent with the State educational goals and the Federal mandate.

In the State of Massachusetts the emphasis has focused on people. Fiscal year 1972 saw service provided to 166,672 youth and adults. The Federal allocation of $10,243,249 proved to be potent seed money that generated State and local support amounting to $118,572,158. Each Federal dollar invested yielded $12 in State and local funds. This State and local contribution extended services further, beyond the Public Law 90–576 stimulus, to programs for youth and adults in evening practical arts, evening trade extension, evening trade preparatory and apprentice training.

With the Vocational Education Act of 1963 and the subsequent amendments of 1968, in addition to preparing skilled workers for business and industry, massive social and economic responsibilities devolved upon occupational education.

Categorical aid assigned to vocational education the new role of improving the quality of life in our society—that of agent for preventing major problems of the inner city among urban populations; preventing human waste among youth unemployed, the disadvantaged, the handicapped and the returning veteran; preventing crime and recidivism among the incarcerated. Vocational education became an investment in human capital.

During the decade 1963–73 there has been a significant growth in the numbers of youth and adults served in Massachusetts.

TOTAL ENROLLMENTS

	1963	1968	1972	1977
Secondary	18, 718	76, 933	121, 684	162, 918
Postsecondary	1, 489	5, 455	13, 019	21, 236
Adult	[1] 48, 504	[1] 55, 062	29, 096	38, 009
Subtotal	68, 711	137, 450	163, 799	222, 163
MDTA	1, 263	3, 490	2, 873	5, 989
Total	[1] 69, 974	[1] 140, 940	166, 672	228, 152

[1] In 1963 and 1968 the adult figure included EPA student enrollment. As of 1969, the adult total does not include EPA figures.

PUBLIC LAW 90–576 PART B—STATE VOCATIONAL EDUCATION PROGRAMS

a. Job training enrollments

	1963	1968	1972	1977
Secondary:				
Agriculture	1, 186	1, 076	1, 223	1, 400
Health	0	29	645	1, 100
Office	NA	55, 562	69, 623	83, 000
Distributive	1, 351	965	4, 517	8, 600
Trades and Industrial	13, 845	16, 805	26, 908	39, 000
Technical	317	514	810	1, 100
Consumer and homemaking (part B)	2, 019	731	2, 040	3, 790
Totals	18, 718	75, 682	105, 766	135, 190
Postsecondary:				
Agriculture	450	72	178	400
Distributive	NA	707	579	1, 200
Health (LPN)	722	1, 312	3, 264	7, 325
Consumer and homemaking (part B)	NA	....	641	495
Office	NA	2, 181	4, 768	7, 930
Technical	317	1, 183	1, 864	2, 589
Trades and Industry	NA	....	891	1, 297
Total	1, 489	5, 455	12, 185	21, 236
Adult:				
Agriculture	300	99	748	948
Distributive	1, 424	1, 178	1, 532	1, 800
Health	224	856	473	543
Consumer and homemaking (part B)	NA	NA	407	607
Office	NA	NA	5, 571	7, 021
Technical	NA	822	2, 012	2, 172
Trade and industry	10, 966	11, 683	15, 417	23, 917
Total	12, 914	14, 628	26, 160	36, 017
Grand total, job training enrollments	33, 121	95, 755	144, 111	193, 443

NOTE.—NA denotes that specific program breakdown into secondary and postsecondary enrollment was not accomplished for fiscal year 1973 report; "NA" postsecondary enrollments, if any, are included in secondary figures.

b. General Description

To fulfill the Federal mandate, the Massachusetts Division of Occupational Education has organized itself for a concerted effort to improve, expand and integrate occupational education in the Commonwealth. In addition to a program of facilities expansion, it is directing its priorities to restructuring the traditional schools for a large noncollege population to gain access to occupational offerings.

Secondary

This secondary population has comprised an approximate 80% who do not complete college. In fiscal year 1972, out of a Massachusetts secondary school (grades 9–12) enrollment of 356,600 students, occupational education served 121,684 students or 34.1 percent of the total body. These figures show a dramatic rise over previous years in services to the high school in the State. This population has been gaining access to vocational education in the following ways:

1. Business and office occupations are increasingly gaining a share of the Federal allocation commensurate with the rising manpower need in the State in order to expand and improve programs. Note increase of enrollment from 55,562 in 1968 to 69,623 or an increase of 25 percent in 1972.

2. Agriculture programs are broadening their scope into agribusiness areas and articulating instruction with distributive education. Note increase of enrollment from 1,076 in 1968 to 1,223 or an increase of 14 percent in 1972.

3. Health programs are broadening their range and gaining emphasis in the secondary schools. By coordinating training programs with hospitals and community nursing homes, such new programs as health services, aids and assistants in the home and in nursing facilities have proliferated.

Note increase of enrollment from 29 to 1968 to 645 or an increase of over 2,100 percent in 1972.

4. Distributive education programs, now in one-third of the State's high schools, are escalating and becoming an important part of the secondary school curriculum orienting the general curriculum into specific job-objective courses.

Note increase of enrollment from 965 in 1968 to 4,517 or an increase of 368 percent in 1972.

5. New shared time arrangements between the general high school and the vocational school are helping to increase enrollments in trade and industry programs.

Note increase of enrollment from 16,805 in 1968 to 26,908 or an increase of 60 percent in 1972.

6. New schools are providing vocational facilities to serve the secondary school population. In September 1973 four new regional vocational schools will be opening increasing the secondary and post secondary enrollment by 4,500 students.

7. Home economics has been stimulated through federal categorical aid and through job-oriented objectives. New programs, designed to stress self-esteem, adequacy and family living, have been encouraged in economically depressed areas of the State through part F funds. New programs for occupational preparation in foods services, care and guidance of children as aides in nurseries and kindergartens have shown increased enrollments in the high schools.

8. The regular high schools are beginning to convert the industrial arts curriculum to courses with occupational objectives, thereby stimulating occupational enrollments.

9. Since 1971, research has stimulated adoption of a career development design to initiate career awareness in the elementary grades. In the middle and junior high grades career exploration, particularly centered around industrial arts, has increased the demand for voca-

tional education. The number of career exploratory programs for grades 6, 7, and 8 has escalated through scheduling late afternoon classes in shop and laboratory and through summer programs conducted in many of the vocational schools.

Postsecondary

By fiscal 1972 an increase in occupational career offerings available in community colleges has been noted. The baccalaureate degree transfer courses are no longer predominant. In one community college programs with occupational objectives now comprise 65 percent of the college curriculum. In the 13 community colleges of the State more than 50 percent of the students are enrolled in occupational career areas as cited in the 13,019 total enrollment figure fiscal year 1972.

New emerging occupations include programs in human services, law enforcement, firefighting training and in paraprofesisonal health fields.

Adult

For the adult populations, Federal funds have provided seed money that has stimulated a growth in evening trade programs for individuals who have never had formal occupational institutional training. From a minimal offering, Federal part B funds have been used to generate an expansion in enrollment at the rate of 50 percent each year. Adult occupational training now utilizes vocational school facilities and equipment during late afternoons as well as evenings. The 4 new regional vocational schools opening in September 1973 will enroll 9,000 adults.

Special populations

In a conscientious effort to expand training opportunities and to reach special populations that do not have access to the conventional school system, Project MODEL (Mobile Occupational Development Education Laboratories) was implemented. It consists of four mobile units with occupational training facilities that travel to communities at the request of a local organization. Short unit skill training courses for job placement are instantly set up on location. Federal funds out of part A 102b and out of part B have helped bring into being Project MODEL for the disadvantaged and the handicapped in fiscal year 1971. An additional part C research grant funded the project for experimental work with instructional materials and with an instructional process that would meet the needs of these unique populations. January 30, 1973 saw one mobile unit on the road. In April 1973 all four units were serving incarcerated and handicapped persons for 6-week occupational training periods. Job entry training in high priority occupations include distributive education fields like supermarket checkers and hotel/motel management; small engine, auto repair, and office occupations were also institut[illegible]. One mobile unit is equipped with facilities for diagnosing basic education needs and evaluating individual occupational competency areas. By 1977, it is projected that Project MODEL will serve annually a minimum of 1,000 persons—residents of correctional institutions, custodial care domiciles, correctional farms, boys' clubs, and other out-of-school youth.

c. Postsecondary enrollments

	1963	1968	1972	1977
Community college[1]				
Agriculture			10	03
Distributive Education		171	453	956
Health		476	1,930	3,956
Consumer and homemaking		25	295	435
Office		1,964	4,551	7,430
Technical		998	1,923	1,839
Trade and industry			330	777
Total		3,634	8,862	15,493
Area regional technical:				
Agriculture	NA	61	168	200
Distributive education	18	300	126	400
Health	801	836	1,334	1,724
Consumer and homemaking	NA	39	400	600
Office	NA	217	217	500
Technical	NA	185	571	750
Trades and industry	312	0	561	561
Special programs	NA	0	780	1,008
Total	1,131	1,638	4,157	5,743
Combined totals	1,131	5,272	13,019	21,236

[1] No Community College enrollment in 1963.

With Federal incentive, the growth in occupational job-oriented courses in community colleges has been rapid over the past 10-year period. The greatest increase appears in the paraprofessional health fields preparing medical and dental technicians, and a close second is in the office occupations.

The regional vocational technical institutes in 1963 offered training to 11,131 persons in highly specialized skills in technical, agricultural, and in the health field. With further Federal support enrollments tripled, and offerings expanded to include occupations in home economics, agriculture and distributive education. Two of these institutions now award associate degree with the option to transfer to 4-year colleges.

d. Disadvantaged Students

In 1968, as a separate and distinct category 157 students were identified as disadvantaged. In fiscal year 1972, special programs for persons in this classification operated in a wide range of entry level skill training. The Federal allocation from part B with the 15 percent set-aside provided remedial services in the schools that did much preventive work in keeping potential dropouts in school. Enrollments showed youth unemployed, the underemployed, and non-English speaking persons were reached. A total of 54 programs were operating, 33 of which were located in economically depressed areas of the State. In fiscal year 1972, the number enrolled in this category was 6,948 persons.

Enrollments	1963	1968	1972	1977
Special needs		344		
Regular programs			5,459	7,721
Special programs			1,489	2,106
Totals		344	6,948	9,827

NOTE.—In 1968 both handicapped and disadvantaged students were counted together as "special needs" students. There are no statistics available for 1963 special needs students.

e. Handicapped Students

Enrollment	1963	1968	1972	1977
Special needs		344		
Regular programs			1,842	2,835
Special programs			827	1,273
Totals		344	2,669	4,108

In fiscal year 1972, programs providing occupational training for the handicapped served approximately 2,669 persons of a variety of handicaps, as follows:

Mentally retarded	1,849
Emotionally disturbed	373
Visually handicapped	54
Hearing impaired	52
Othopedically handicapped	51
Multihandicapped	260
Learning disabilities	30

Programs for the handicapped are being introduced into the vocational school with every effort made to provide a normal work environment. Reports of successful programs operating in Massachusetts appeared in the American Vocational Journal, May 1973 issue, and in the Division of Occupational Education newsletter Interchange from time to time. It is anticipated that career development will extend services for the handicapped by making occupational exploratory courses available to handicapped pupils in grades 6, 7, and 8 in fiscal year 1974.

f. Adults

Enrollments	1963	1968	1972	1977
Evening trade preparatory (unemployed in need of training)	NA	NA	10,438	13,635
Evening trade extension (employed in need of upgrading)	NA	NA	14,544	19,000
Apprenticeship	NA	NA	4,114	5,374
Total	12,690	14,628	29,096	38,009

Note.—NA equals not available.

These figures—exclusive of evening practical arts and homemaking courses—represent the numbers of adults receiving job training for entry level skills, for upgrading skills for updated and more satisfying employment, and for apprentice training. They are supported with Federal grants under Public Law 90–576 and supplemented with State and local funds. In 1972, a Federal grant of $95,000 was supplemented with a State appropriation of $1,400,000 matched with an equal local appropriation totaling a State/local amount of $2,800,000.

Under the Manpower Development Training Act, the number of referrals by the Department of Labor Division of Employment Security shows the following completion figures as compared with those in programs under the adult part B category:

Enrollment	1963	1968	1972	1977
MDTA	1,263	3,490	2,873	5,989
Adult (pt. B)	12,690	14,628	29,096	38,009

g. Financing

(i) The Massachusetts Division of Occupational Education has developed a detailed objective formula for the distribution of Part B funds among local educational agencies and other agencies within the State. [Reference: State plan fiscal year 1973, section 3.1.]

3.0 *State Vocational Education Program*

3.1 *Allocation of Funds to Part B Purposes.* Funds granted under Part B of the Vocational Education Amendments of 1968 shall be appropriately apportioned to provide vocational education programs for (1) high school students designed to prepare them for employment or for advanced or highly skilled post-secondary vocational and technical education; (2) persons who have completed or left high school; (3) persons who are employed and need training or retraining to achieve employment stability, or to upgrade themselves; (4) persons who have academic, socioeconomic, or other handicaps which prevent them from succeeding in the regular vocational education program; and (5) physically or mentally handicapped persons who cannot succeed in the regular vocational education program without special educational assistance, or who require a modified vocational education program.

In addition, funds shall be appropriately apportioned for the support of services and activities such as (1) construction of area vocational-technical education facilities; (2) vocational guidance and counseling designed to aid the persons identified above in selecting, preparing for and securing employment in appropriate vocational areas; and (3) ancillary services and activities designed to assure quality in all vocational education programs (such as teacher training, supervision, evaluation, experimental and pilot programs), materials development, State leadership and State and local program evaluation in terms of current and projected manpower needs and employment opportunities and dissemination of research findings and results.

Funds for programs, services and activities listed under Section 102.51 Part (B) of the Act, will be allocated on the basis of approval of local applications submitted to the Division of Occupational Education. Application approvals will be made within priorities stated in the State Plan.

Local autonomy in the Commonwealth of Massachusetts provides that local education agencies appropriate total amount needed for occupational education less Federal funds. State funds are utilized *post facto* to reimburse local education agency programs up to 50% of net maintenance costs.

The manner of considering the relative fiscal abilities of local educational agencies and the relative differences in costs among such agencies is described in the State plan [section 3.26–3].

3.26–3 **Relative Ability to Provide Resources:** In allocating funds among local educational agencies supported in whole or in part with local tax revenues, the State Board will give due consideration to their relative ability to provide the resources necessary to meet the occupational education needs in the areas or communities served by such agencies. Reference will be made to the total taxable income of residents in the area to be served and any specific data that the local educational agencies might present that is peculiar to that particular area.

The information to be relied upon in making the above determination will be that supplied by the local surveys and other State and Federal agencies having to do with Taxation and Finance. All of this information will be updated annually. Priority will also be given to areas that are depressed or have high unemployment rates. Areas designated by the Department of Commerce as EDA Title I and Title IV areas, and those designated by the Department of Housing and Urban Development (HUD) as Model Cities will receive funding priority.

3.26–4 **Relative Costs of Programs, Services and Activities:** In allocating funds among local educational agencies, the State Board shall give due consideration to the cost of the programs, services, and activities these local educational agencies provide which is in excess of the cost which may be normally attributed to the cost of education in such local educational agencies. In determining the relative priority of local educational agencies in terms of costs of education, the State Board shall give primary consideration to (a) differences in the cost to local educational agencies of materials and services such as construction or equipment costs or teachers' salaries, which are due to variations in price and wage levels or other economic conditions existing in the areas served by the local educational agencies, and (b) differences in the amount of excess costs accruing to the local educational agencies because of the necessity of supplying special services and bus transportation for students or unusual and excessive maintenance costs for outdated buildings and facilities, which are not usually part of the cost of education provided by other local educational agencies in the State.

The State Board will give due consideration to the section of the annual application which will include:

(1) grade levels and population groups being served,

(2) per pupil cost of program, services and activities,

(3) local—in kind services not normally provided by other local educational agencies.

All of the information used will be reviewed annually by the Division of Occupational Education.

3.26-5 Other Criteria of the State: If the State Board determines a need for criteria in addition to those described in Part I, 3.26-1 through 3.26-4 such additional criteria shall be set forth and submitted as an amendment to the State Plan.

The State's use of variable matching of local funds for Federal funds is cited in State plan [section 3.25-1].

3.25 *Matching.*

3.25-1 Overall State Matching: The State Board hereby assures that Federal funds will be allocated to local educational agencies in a manner which will result in at least one dollar of State and/or local funds being expended for each dolar of Federal funds expended under the State Plan for Occupational Education programs, services, and activities under Part B of the Act, but not in a manner which requires local educational agencies to match Federal funds at a percentage ratio uniform throughout the State.

The Massachusetts general laws, chapter 74 by allowing 50 percent reimbursement of net maintenance costs of all approved vocational programs, provides added incentive to occupational education.

	State totals		Urban Boston		Suburban Acushnet	
	Percent	Amount	Percent	Amount	Percent	Amount
1963:						
Federal	14.7	703,525	9.3	65,422	0	0
State	85.3	4,078,031	17.6	716,703	0.7	27,167
Total	100.0	4,781,556				
Population (1960 census)	100.0	5,305,020	12.8	680,360	.1	6,359
1968:						
Federal	27.5	5,526,280	4.1	224,681	0	0
State	72.5	14,545,637	12.0	1,751,232	.5	68,163
Total	100.0	20,071,917				
Population (1960 census)	100.0	5,575,630	11.7	652,296	.1	7,363
1972:						
Federal	15.0	10,381,323	(10.3)	1,066,758	.1	6,575
State	85.0	58,787,720	4.6	2,678,784	.1	65,778
Total	100.0	69,169,049				
Pupulation (1970 census)	100.0	5,803,523	10.9	629,846	.1	8,169
1977:						
Federal	10.3	13,567,260	8.2	1,112,515	.1	8,700
State	89.7	118,312,556	4.6	5,442,378	.1	85,511
Total	100.0	131,879,816				
Population	100.0	6,099,562	9.9	601,783	.1	9,174

The rural town of Acushnet served 114 students in a variety of occupational programs in fiscal year 1972. Project MECA, an exemplary program, reached 23 potential dropouts who received academic and remedial instruction and were then bussed to an extended-day vocational program. The success of Project MECA and the anticipation of additional Federal funding leads Acushnet to predict serving over 200 students in the fiscal year 1977 or an increase of 90 percent.

h. Construction and Equipment

The period under review shows the current and committed investment by local school districts and the State of Massachusetts for 46 new vocational facilities. As of this reporting, 24 new facilities have been constructed; 9 new facilities are scheduled to open in September 1973; 2 are currently under construction; 5 are to start construction, and 6 are in the planning stages. Investment figures are as follows:

	1963–68	1969–72	1973–77	Total
Federal aid	$5, 315, 332	$6, 015, 200	$13, 036, 889	$24, 367, 421
Local	$27, 981, 093	$62, 859, 440	$168, 326, 928	$259, 167, 461
State aid	$1, 751, 381	$6, 602, 203	$22, 551, 875	$30, 905, 459
Area vocational schools	9	15	22	46

The State's investment via aid under statutory law will total $129,583,461. This school building assistance aid is payable on an annual basis to the local school districts over the life of the State approved local bond issue, normally 20 years. The amounts noted under the designated years are cumulative. It goes without saying that Federal support has encouraged the local investment effort in the construction of vocational facilities.

Prior to 1971, State participation amounted to 40 percent of the approved cost of the school. The enactment of a 1971 change in the State school building assistance law now increases State construction aid to 65 percent of the local investment of every city and town in an economically depressed area. Cities and towns not in a depressed area receive State assistance of 50 percent, and regional school districts receive a range of construction aid from 50 percent to 65 percent.

Facilities expansion—via new construction and also the restructuring of the traditional school building to maximize the use of existing facilities—is a major emphasis of the division of occupational education in fiscal year 1973. To meet the rising demand for occupational education and training in Massachusetts, new construction was encouraged early in the decade with the award of Federal funds amounting to 10 percent of construction costs. The huge upsurge of applicants for admission to new regional vocational schools has been met by the construction of extensions and annexes to a number of the schools built earlier in the decade. Increasingly, the schools are functioning as skill centers by coordinating with the high schools in the district in a flexible scheduling arrangement.

PUBLIC LAW 90–576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

Part D funds have provided impetus for creative approaches in occupational education, particularly in the ~~last~~ 3 years of increased part D moneys.

(1) Boston ORC, occupational resource center, funded in fiscal year 1971, is a skill center designed to allow innercity students a flexible school schedule and increase their competency for job entry. The program has expanded its offerings from a concentration in the health fields to include agriculture, business and office occupations. In 1972, enrollment reached 250 students. Out of 154 graduates, 80 percent were successfully placed in jobs. In 1977, an enrollment of 500 students is anticipated.

(2) Project FEEDER, originally funded in 1971, completed its third year of operation. It reached 45 junior high school students in 1972 through guidance techniques and introduced them to an awareness of career offerings. Coordinated with a regional vocational school, the program offered the junior high students exploratory experiences in a number of occupational areas.

(3) Project MECA, funded in 1971 completed its third year of operation. It reached 28 potential dropouts in a host school district where they received academic and remedial instruction and they were bussed after school to an extended-day vocational program for training at very little cost to the school district.

(4) Evaluation/diffusion model was funded in 1972 to prepare improved guidelines and evaluation instruments for exemplary activities.

(5) X4T project funded in 1972 involves a consortium of four towns in the planning and developing of alternative methods of offering occupational education in the four-town region. The project is assessing needs and determining process and cost effectiveness of delivering occupational training to 16,000 students.

(6) Operation Fire Camp was funded in 1972 and initiated in September 1972 to develop a planning model for a Massachusetts firefighting program for disadvantaged secondary students as well as adult training and retraining activities.

(7) Cardinal Cushing Center in Boston helped 14 alienated youth in career planning in fiscal year 1972.

b. Residential Vocational Education

In fiscal year 1973 with a Federal grant of $32,000, Project RECENT was funded to conduct a feasibility planning study of a residential vocational school for core city disadvantaged.

c. Consumer Homemaking and Occupational Home Economics

Level	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	2,019	1,251	731	13,215	(427)	(75)	2,040	(2)	(2)
Adult	(1)	40,434	370	2,786	(1)	(1)	407	(2)	(2)
Total	2,019	42,417	1,101	16,055	427	75	3,088	665	193

[1] None.
[2] Breakdown not available.

	Fiscal year 1977					
	Part F—Consumer home economics			Part B—Occupational home economics		
	Part F total	Disadvantaged	Handicapped	Part B total	Disadvantaged	Handicapped
Secondary	16,683	(539)	(95)	2,504	(2)	(2)
Adult	3,517	(1)	(1)	500	(2)	(2)
Total	20,258	539	95	3,790	816	237

[1] None.
[2] Breakdown not available.

Due to the consumer and homemaking part F Federal funding, a program initiated at Simmons College in urban home economics with an enrollment of 60 students has excellent potential for providing better employment opportunities and enriching the lives of many in economically depressed areas. The 60 urban women from disadvantaged areas work and attend classes for which they earn 2 years of college credit plus employment skills. The program gives each member an opportunity to teach 23 persons in their peer group in valuable areas of consumer education and home economics. The program thus reaches 1,200 urban women each year.

d. Cooperative Vocational Education

Various types of cooperative programs are operating in the occupational areas of office, home economics, trade and industry, agriculture and distributive education.

Enrollments have been as follows:

1963	804
1968	1,007
1972	3,673
1977	6,249

Distributive education programs using cooperative education arrangements have been the most viable, because of the job need and the job availability in urban, suburban, and rural communities.

A successful cooperative program school has been in operation in the city of Boston for the past 5 years. It has each year served 250 students of the innercity in diversified occupations. Federal funding supplemented by State and local appropriations has provided disadvantaged persons marketable skills and job placement.

Part G funds have been assigned to pay the salary of the teacher coordinator who is the key administrator for cooperative programs in the school and community. The teacher coordinator must sell the cooperative concept, supervise the student on the job, and be knowledgeable about labor laws as well as the labor needs of the community. In order to expand cooperative vocational education in the State we find a need for a larger part G allocation for more teacher coordinators.

e. Work Study

With Federal stipends disadvantaged youth in vocational programs between the ages of 15–21 are able to remain in school and work parttime in employment not necessarily related to the occupational education field. This program has made it possible for many more disadvantaged youth to stay in school.

Enrollments under Federal moneys have been reported as follows:

1963	310
1968	388
1972	1, 718
1977	2, 203

f. Research and Training

Part C funds have stimulated creative thinking and research in occupational education. A major priority in the Massachusetts Division of Occupational Education are two research projects that have gained recognition and hold promise of national significance.

Project CAREER is an innovative research and development project administered by the Massachusetts Division of Occupational Education. Project CAREER/Development is the major research program which together with the guidance component and the handicapped component offers an informational foundation that will prepare all students—including those with special needs—with marketable skills. A primary goal of Project CAREER is to develop a computer-based bank of industrially validated behavioral objectives for occupational skill training together with associated instructional data and an instructional process.

When fully developed at the end of fiscal year 1974, Project CAREER will have the potential for enabling students to relate to the world of career development in a practical way. The project is a cooperative effort based on the interaction of business, industry and education. This triad will facilitate the participation of Project CAREER students in meaningful occupations and/or further educational endeavors. To date, 61 teachers have been provided in-service training for the Project CAREER concept, and 8,000 students have been provided its instructional process. By the end of fiscal year 1973, it is anticipated that 12,000 behavioral objectives with occupational skill performance will have been prepared for the instructional training process. The guidance component has involved 29 guidance professional personnel in career guidance, and the handicapped component has prepared a data base of occupational behavioral objectives for occupational competency for the handicapped. The project is in its third year of Federal funding and is being pilot tested in three different local educational districts, one of which is an urban multiethnic environment.

Part C funds have also supported a vital MANAGEMENT INFORMATION SYSTEM FOR OCCUPATIONAL EDUCATION. This is an interactive information system for the management of occupational education in the State of Massachusetts. The data bank provides instant information continually up-dated from census reports, labor and industry needs and trends, social and economic trends data, and demographic information of every type. The range of information will aid school management in rational decision-making. The Management Information System consists of a static component that describes students served, cost, process and product as well as impact over a period of time. The dynamic component provides, through simulation and mathematical programing, a management tool for testing alternative decisions for rational judgments above resource allocations. This management information system when implemented in September 1973 will vastly assist educational planning both long range and annual. The project promises to have national implications. Federal support has helped to bring this long-needed program to fruition.

STATE ADVISORY COUNCIL

Vocational Education in Massachusetts enjoys the support of the public. The State and local governments have evidenced their support through the appropriation in fiscal year 1971 of $112,347,876 on a matching basis, and in fiscal year 1972 the appropriation increased to $118,572,158.

The State advisory council is earnestly involved and dedicated to the effort of the division of occupational education to improve, expand an integrate occupational education in the Commonwealth in order to meet the needs of all youth and adults. The Governor's advisory council has initiated public hearings on the State plan for occupational education in coordination with the State leadership youth programs. [The advisory council recommends maximum participation of youth organizations in all vocational areas and the Division of Occupational Education is encouraging larger youth participation through its Office of youth services.]

Recommendations of the State advisory council are diligently pursued by the department of education. Of major concern has been the State planning for long-range and annual occupational education needs. The council recommended an information dissemination system to facilitate planning and management. The division of occupational education is instituting a management information system for occupational education to be implemented in September 1973 which wins the Advisory Council's full support. To improve planning procedures, the State Advisory Council has recommended that the Federal disbursements better coincide with the local educational agency school year planning. Notification by USOE of the Federal award and issuance of Federal monies to the States might synchronize with the school year to improve local school management. Federal allotments disbursed to the States at more frequent intervals during the fiscal year might also help to alleviate the planning problem at the local level. The State advisory council has recommended greater focus on programs in the general high schools. The division of occupational education has given high priority to the integration of occupational education programs and the extension of occupational opportunities to the general high school student. Greater effort is also focused on extending occupational opportunities to the disadvantaged and handicapped populations in a number of creative ways. By working together with community organizations, representatives of business and industry, and local citizen groups as well as the Governor's advisory council, the Massachusetts Department of Education hopes universal vocational education—and the occupational competency it has to offer—will be realized.

SUMMARY AND RECOMMENDATIONS

Massachusetts has benefited immeasurably from the Vocational Amendments of 1963 and 1968, and particularly from the stipulated categorical aid parts of the law and the set-asides. Not only have these categories served as excellent guidelines but they have also directed substantive support to major efforts for target populations. They must continue. It is also strongly recommended that the Tydings Amendment (Public Law 91-230, subsection 405b) be continued. This amendment has permitted funds for certain programs to be obligated both in the fiscal year appropriated and in one succeeding year. It has encouraged viable programs to become ongoing and has helped countless persons on their way to occupational independence. To do more—and much more needs to be done—it is also imperative and urgently recommended that Federal funds for occupational education be maintained by the State educational agency that oversees the total population and has set as its educational goals equal educational opportunity and occupational competency for all.

MICHIGAN

State Director—Arnold Loomis

INTRODUCTION

In the 10-year period, 1962–72, total enrollment has grown from 145,986 to 342,985 which is an increase of 196,999 persons or 135 percent. The prior 10-year period, which predated the Vocational Education Act of 1963 and the 1968 amendments, showed a growth of only 28,607 persons or 25 percent. In other words, the last decade's growth was 13.5 percent per year contrasted with 2.5 percent per year in the previous decade.

Enrollments by fiscal years were as follows:

1963	156, 314
1968	283, 633
1972	342, 985
1977 (projected)	475, 500

(These enrollments are from reimbursed programs. Information concerning nonreimbursed courses is not available.)

The integral relationship between occupational education and the total educational process is recognized in Michigan. Common goals of Michigan education have been identified to reach the goal of offering equal education so that people may achieve the maximum potential.

The three primary objectives of vocational education in Michigan are:

(1) To contribute to the total effort of the Michigan Department of Education to guarantee that every child, youth and adult obtains maximum career development skills within personal capabilities and interests of the individual;

(2) To guarantee that no student entering high school in the State of Michigan leaves without having the opportunity to gain entry-level salable skills regardless of his or her ultimate career objectives; and

(3) To provide programs of adult occupational education to all persons of the State who need or desire service.

Program emphasis has changed during the last decade through special provisions and sections of the Federal acts. As a result, vocational education in Michigan has expanded considerably to provide more opportunity for adults, disadvantaged and handicapped. The "Tentative Plan for the Development of Area Vocational Education Centers in Michigan," based upon 42 area studies made possible by Federal funds, provides a basis for initiating joint local planning efforts for improved communication and articulation of vocational-technical education programs. Currently, 22 area vocational education centers are in operation with a projected count of 77 within the next 5 years. This excludes Detroit which is currently conducting an area vocational education study to assess needs for centers.

In addition, planning districts have been established throughout the State. These 49 planning areas provide the vehicle for local articulation of programs and facilitate dissemination of information.

a. Job Training Enrollments

	High school	Post-high schools	Adult	Total
1963:				
Agriculture	12,796		3,303	16,099
Distributive education	2,848	255	15,514	18,617
Health	381	1,992	185	2,558
Home Economics wage earnings [1]				
Office education	3,445	291		3,736
Technical	398	3,717	2,177	6,292
Trade and industry	6,336	10,876	27,921	45,133
Totals	26,204	17,131	49,100	92,435
1968:				
Agriculture	11,823	571	1,536	13,930
Distributive education	15,345	3,359	19,932	38,636
Health	1,544	3,100	747	5,391
Home economics wage earning [1]				
Office education	39,619	9,679	7,294	56,592
Technical		6,384	2,546	8,930
Trade and industry	16,056	5,436	53,814	75,306
Totals	84,387	28,529	85,869	198,785
1972:				
Agriculture	12,381	1,095	421	13,897
Distributive education	18,208	2,896	17,768	38,872
Health	4,229	8,204	2,165	14,598
Home economics wage earning	9,817	227	3,485	13,529
Office education	33,913	20,264	10,657	64,841
Technical		12,397	5,087	17,484
Trade and industry	29,032	16,719	50,481	96,232
Totals	107,580	61,802	90,064	259,446
1977:				
Agriculture	17,700	1,500	1,100	20,300
Distributive education	34,300	3,500	21,500	69,300
Health	8,000	10,000	8,000	26,000
Home economics wage earning	18,000	2,000	7,200	27,200
Office education	61,000	25,000	21,100	107,100
Technical		15,000	11,000	26,000
Trade and industry	65,000	18,000	70,100	153,100
Totals	204,000	75,000	140,000	429,000

[1] Not identified as "Job Training" in 1963 and 1968.

b. General Description

Job training programs for youth and adults have grown significantly during the past decade with the exception of production agriculture which has declined. New programs of agriculturally related occupations have arisen during this time in three fields and enrollments show a steady increase. These include agricultural supplies and services, ornamental horticulture, and agricultural resources. New fields initiated in distributive education which are experiencing continued growth include floristry, hotel and lodging, industrial marketing, and recreation and tourism.

Health education programs have grown tenfold but we are still not meeting needs in this expanding employment demand area. Wage earning home economics programs, now identified which were previously treated incidentally, include care and guidance of children, clothing management, food management, home furnishing, and institutional and home management and supporting services. Collectively, these fields experienced a 33⅓ percent increase in enrollment from fiscal year 1971 to fiscal year 1972.

New programs in office education include accounting and computing, data processing, office management, communication occupations, and personnel training. Enrollment in accounting and computing occupational courses increased 12 percent in 1972 over 1971. Personnel training increased 34 percent during this same period.

Programs in the technical fields were almost nonexistent a decade ago. These fields, offered principally in community colleges, now enroll over 17,000 persons in greatly needed programs. These include aeronautical technology, architectural technology, chemical technology, electronics technology, air pollution technology, and water and waste water technology. Collectively the growth in enrollment averaged 23 percent from fiscal year 1971 to fiscal year 1972.

The total field of trades and industrial occupation enrollments grew 15 percent from 1971 and 1972. New programs include but are not limited to air-conditioning. appliance repair, electronics, maritime, cosmetology, plastics, refrigeration, small engines, and quantity food programs.

c. *Postsecondary Courses*

Michigan's 29 public community colleges and its 11 4-year colleges and universities constitute the primary postsecondary occupational education delivery system in Michigan. A breakdown of postsecondary enrollments in occupational preparation programs for 1963, 1968, 1972, and 1977 (projected) by institution type is presented in table 1.

TABLE 1.—ENROLLMENTS IN POSTSECONDARY OCCUPATIONAL PREPARATION PROGRAMS

Type of institution	1963	1968	1972	1977 (projected)
Community college	15,102	24,621	48,825	98,280
4-year institution	2,351	3,915	14,391	27,720
Total	17,453	28,536	63,216	126,000

In summary, enrollments in postsecondary occupational programs have increased by approximately 100 percent every 5 years, and all variables indicate that this growth pattern will continue through 1977.

d. *Disadvantaged*

Categorical aid for disadvantaged persons as provided for in Public Law 90–576 has had a most significant impact in vocational education. Persons are receiving training and entering the labor market who would not have received such training or jobs without such categorical aid.

Increasingly the program is gaining momentum. Michigan is now serving 10,941 persons in 97 school districts. An ever increasing number of school districts are seeking to initiate programs for such persons.

	Students served, regular programs	Students served, disadvantaged programs
Fiscal year:		
1963	156,314	(1)
1968	283,633	(1)
1972	342,985	11,679
1977 (projected)	475,500	50,000

[1] Not available.

e. Handicapped

With passage of Public Law 90-576, moneys were set aside for funding of vocational programs for handicapped persons resulting in significant changes in vocational education in Michigan. Handicapped persons are being prepared for and entering the labor market who without such assistance would be unable to do so.

Programing for the handicapped is rapidly gaining momentum across the State. There are currently 3,225 persons being served in 75 different school districts. The number of school districts attempting to implement vocational programs for handicapped persons increases each year.

	Students served regular programs	Students served handicapped programs
Fiscal year:		
1963	156,314	(1)
1968	283,633	(1)
1972	342,985	7,010
1977 (projected)	475,500	21,000

[1] Not available.

f. Adults

Community colleges and 4-year institutions provide adult collegiate preparatory occupational instruction to full- and part-time students (see part C). Secondary school districts, community colleges and 4-year institutions provide adults with noncollegiate occupational education. This type of education is designed to supplement the student's present job skills so that each may advance or stabilize job wise in the labor market. Related instruction for apprentices is considered as part of this type of education.

Persons in this category are either employed or unemployed. The figures in table 1 state the employed and unemployed in need of job training for the years 1963, 1968, 1972, and 1977 (projected) who are currently being served.

ABLE 1.—NUMBER OF STUDENTS SERVED WHO ARE EMPLOYED OR UNEMPLOYED IN NEED OF JOB TRAINING

	1963	1968	1972	1977 (projected)
Unemployed in need of job training	11,843	17,289	16,589	23,890
Employed in need of job training	57,823	84,415	80,995	116,686
Total	69,666	101,704	97,584	104,576

Adults enrolled in noncollegiate programs are considered to be either in preparation for employment or are enrolled and supplementing their present job skills with new required skills so as to stabilize or advance themselves in the labor market.

The figures presented in table 2 state the number of students enrolled in these two types of programs.

TABLE 2.—NUMBER OF STUDENTS SERVED IN ADULT NONCOLLEGIATE OCCUPATIONAL PREPARATORY AND SUPPLEMENTAL PROGRAMS

	1963	1968	1972	1977 (projected)
Adult preparatory	([1])	([1])	21, 241	41, 378
Adult supplemental	([1])	([1])	74, 903	127, 230
Total	69, 666	101, 704	116, 144	168, 608

[1] Unknown.

g. Financing

(i) Method used for distribution of part B funds.:

Federal funds are allocated on a nonuniform basis according to the four categories of allocation formula factors specified in Public Law 90–576, Vocational Education Amendments of 1968. For the secondary and adult education levels, a 10-point scale is used covering 10 factors distributed across the four categories mandated. These are programed into a computer to provide a variable rate of reimbursement to local education agencies based upon relative need. For the postsecondary level, a 20-point list of factors will be used yet this year (1972–73) but a revised system is being considered for 1973–74. The two systems are excerpted from the 1972–73 State plan for vocational education to show the manner of considering the relative fiscal abilities and differences in costs among local agencies.

Criteria for Determining Relative Priority of Local Applications—Secondary

The funding formula outlined in this section applies to the reimbursement of regular instructional programs from Federal funds at the secondary level. All special projects under part B, including disadvantaged and handicapped, contracted instruction, guidance, counseling and placement projects, construction, and ancillary services may be approved on a project basis. Federal funds required to be allocated on a non-uniform basis will be distributed according to the following allocation formula factors:

3.26–1 *Manpower Needs and Job Opportunities*

(1) Unemployment Rate: The rate of unemployment identified by the Michigan Employment Security Commission (MESC) or the substantial and persistent unemployment rate will be placed mid-point on a 10-point scale.

Each district will be located on the scale in accordance with the average unemployment rate for the year for the respective area as shown by the State MESC office.

1	2	3	4	5	6	7	8	9	10	11% +	(Percent Unemployment)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

(2) Concentration of Youth Applicants: The mid-point of a 10-point scale will be placed opposite the critical point supplied by MESC for areas where youth under 22 years of age make up 25 percent or more of total job applicants.

0	5	10	15	20	25	30	35	40	45	50 +	(Percent Youth Applicants)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

3.26–2 *Vocational Education Needs*

(1) Title I ESEA Eligibles: A mid-point of 20 percent will be used for this factor.

0	3	5	10	15	20	25	30	35	40	50 +	(Percent ESEA)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

(2) Dropout Rate: The average dropout rate of students for the State will serve as the mid-point for this factor.

1.0	2.0	3.0	4.0	5.0	6.75	8.0	9.0	10.0	11.0	12 +	(Dropout Percent)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

3.26–3 *Relative Ability to Provide Resources*

(1) State Equalized Valuation: The average state equalized valuation per resident member will be used as the mid-point for this factor with the highest values being at the low point end of the scale.

40,000+	35,000	30,000	25,000	20,000	16,000	14,000	12,000	10,000	8,000	6,000	(Dollars)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

(2) Property Tax Millage Rates for Operation: The total millage rates for operation will be used for this factor. (This factor will be discontinued if such taxes are discontinued.)

10	12	14	16	18	20	22	24	26	28	30	(Tax Mills)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

(3) Property Tax Millage Rates for Debt Retirement: The amount of millage levied for construction of buildings and initial equipment will be used for this factor.

0	1	2	3	4	5	6	7	8	9	10 +	(Tax Mills)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

(4) Amount of State and Federal Forests in the District: A mid-point of 25 percent of Government-owned forests will be used.

0	5	10	15	20	25	30	35	40	45	50 +	(Percent Public Owned Forests)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

3.26–4 *Relative Costs of Programs, Services, and Activities*

(1) Excessive Transportation Costs: The average cost of transporting students will be used as the mid-point for this factor.

0	10	20	30	40	$57.27	80	110	140	170	200 +	(Dollars)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

(2) Expenditures Per Pupil: The average dollars expended per pupil in the State will be used as the mid-point for this factor.

1,200	1,100	1,000	900	800	$727.65	600	500	400	300		(Dollars)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

Criteria for Determining Relative Priority of Local Applications—Postsecondary

Due consideration will be given by the Department of Education by taking into consideration the following factors during application review:

3.26–1 *Manpower Needs and Job Opportunities*

(1) The local educational agency operates vocational education programs in labor market areas which exceed the State average unemployment rate.

(2) The local educational agency operates vocational education programs which have been identified by governmental and nongovernmental agencies and institutions as new and emerging occupations.

(3) The local educational agency operates vocational education programs which meet identifiable local employment needs.

(4) The local educational agency operates vocational education programs which meet identifiable State and national employment needs.

3.26–2 *Vocational Education Needs*

(1) The programs submitted show evidence of meeting the needs of disadvantaged youth.

(2) The programs submitted show evidence of meeting the needs of the handicapped.

(3) The program gives evidence of the extent to which vocational education is available for secondary school youth.

(4) The program gives evidence of the extent to which vocational education is available for postsecondary youth and adults.

(5) The program gives evidence of the extent to which vocational education is available for out-of-school youth and adults.

(6) The programs submitted provide evidence of meeting the needs of unemployed youth.

3.26–3 *Relative Ability to Provide Resources*

(1) The local educational agency is located in a redevelopment area designated by the Department of Commerce.

(2) The local tax effort of the local educational agency exceeds the State average or the average available wealth per student is less than the State average.

(3) The school district has been designated as economically depressed, as identified by Elementary and Secondary Act criteria (see 1.10C).

(4) Income, measured by per capita or comparable indices, in the area is less than the State average.

3.26-4 *Relative Costs of Programs, Services, and Activities*

(1) Higher construction costs due to variation in price and wage levels incurred by local educational agencies will be considered.

(2) Higher instructional cost per student evidenced by a lower than average teacher-pupil ratio will be considered.

(3) Instructional salaries incurred by local educational agencies which exceed the State average will be considered.

(4) Transportation services as reflected by higher than average expenditure per student by local educational agencies will be considered.

(5) Maintenance of plant costs as reflected by higher than average expenditures per student by local educational agencies will be considered.

(6) A local tax effort which is equal to or greater than the average local tax effort in the State for all programs, services, and activities will be considered.

(ii) Table showing relationship of allocations to population served:

	Population of over 250 000, Detroit	Poorest rural areas (lowest SEV's)	
		Rudyard	Gwinn
State equalized valuation per resident member (taxable value of real estate ÷ number of pupils in district)	$19,872	$2,080	$3,075
Population	1,513,601	1,273	1,054
Percent of total State population (8,875,083)	17	.014	.011
Total funds approved	$1,861,397	$1,886	$2,530
Percent of total funds ($15,152,566) [1]	12.3	.012	.016
Total Federal funds approved	$1,554,387	$1,886	$2,530
Percent of Federal funds approved ($10,594,700) [1]	14.7	.017	.023
Total State funds approved ($4,557,866) [1]	$307,010	0	0
Percent of State funds approved	6.7		

[1] Does not include funds set aside for postsecondary.

The data above are for fiscal year 1972 and do not include construction funds for Detroit. This district has received $2,180,417 for seven construction projects in prior years. Another reason for the disparity is that Detroit has repeatedly been unsuccessful in passing operational millage and has therefore not been able to provide sufficient local funds for full implementation of programs, projects, and instructional equipment approved for them.

In order to improve opportunities for Detroit to obtain funds commensurate with its population, part B funds are being utilized to support (at no cost to the school system) an area study of its needs. This study is to be completed in the fall of 1973 and has been designed to give data necessary for planning and providing program and facility needs of the future.

h. Construction and Equipment

EQUIPMENT AND CONSTRUCTION, 1963 THROUGH 1977

	Federal	State	Local
Equipment:			
1963 through 1968	$8,208,059		$8,208,059
1969 through 1972	5,921,196		5,921,196
1973 through 1977	10,838,363		10,838,363
Construction:			
1963 through 1968	11,013,674	$1,300,000	12,313,674
1969 through 1972	10,798,481		10,798,481
Funds needed 1973 through 1977	35,000,000	90,000,000	125,000,000

The delivery system for vocational education in Michigan calls for the establishment of comprehensive secondary vocational education programs provided in K–12 districts and supplemented by 77 secondary area vocational education centers strategicaly located within commuting distance from each participating high school. In addition, the State's 29 community colleges and 10 4-year institutions provide vocational and technical education programs for postsecondary students, out-of-school youth, and adults who need training or retraining. By 1973, 26 secondary area vocational education centers were established. In addition, programs are provided at all 29 community colleges, however, program growth at both the secondary and postsecondary levels has been retarded due to the lack of construction and equipment funds. Michigan has been dependent entirely upon Federal construction money for matching local funds to construct secondary area vocational education centers. These Federal funds for construction have been a major stimulus in establishing 26 centers to date. To completely implement the secondary area vocational education center plan in Michigan, $200 million in matching grants will be needed by a target date of 1980. It is imperative that Federal vocational education construction funds be available if complete implementation is to be achieved.

PUBLIC LAW 90–576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

No programs for 1968.

PROGRAMS FOR 1972

School	Title of project	Number of persons served
Capac Community Schools	Mini-Man Power Project	20
Flint-Genesee Intermediate School District	Educational and Career Exploration System (ECES)	2,771
Ironwood-Gogebic Community College	Winter and Summer Resort Technical Education Project.	[1] 0
Bergland-Gobebic-Ontonagon Intermediate School	Shared-Time Vocational Education Program	270
Manistique Area Schools	Community Stationed Contracted Vocational Skill Training.	23
Petoskey High School	A Special Project to Eliminate Educational Disadvantageds (SPEED).	[2] 0
Plymouth Community School District	Guidance Under an Industrial Directed Effort (GUIDE).	1,400
Rochester Community Schools	Work Experience Program	23

[1] Developmental in 1972 will serve approximately 25 students in 1973.

[2] Will serve all students enrolled in all areas of vocational education in 1973.

NOTE.—Programs for 1977 (projected).—Projected 7 500.

The first year that money was available under VEA 1968 for exemplary programs was spent in developing guidelines for funding the programs. Consequently, no programs were funded for fiscal year 1968.

Each of the programs in operation in fiscal year 1972 focus on a specific problem area and have attempted to demonstrate that innovative programs can meet vocational education needs. Several of these programs have served as a basis for major program revisions in State-wide vocational education programs. It is anticipated that by 1977 further changes will be made in vocational education programs in Michigan as a result of demonstrations of unique or innovative vocational practices funded under exemplary programs.

b. Residential Vocational Education

The delivery system for vocational education in Michigan calls for the establishment of compreehnsive secondary vocational education programs provided in K–12 districts and supplemented by 77 secondary area vocational education centers strategically located within commuting distance from each participating high school. In addition, the State's 29 community colleges and 10 4-year institutions provide vocational and technical education programs for postsecondary students, out of school youth, and adults needing training or retraining. A number of these postsecondary institutions have residential-facilities. As residential vocational education is needed in Michigan, these programs would be tied to existing postsecondary educational agencies. This approach maximizes the use of existing facilities, staff and financial resources.

c. Consumer Homemaking and Occupational Home Economics

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	43,313	[1] 69,006		68,781	1,452	321	9,817	381	90
Adult postsecondary	20,566	[1] 15,835		[2] 6,080			3,485	NA	NA
Total	63,879	[1] 84,841		74,871			13,529		

[1] Not identified separately in fiscal year 1968.

[2] Reduction in enrollment resulted from a change in funding criteria for reimbursement.

Consumer education and programing for family life in economically depressed areas:

One-third of Federal money available under part F of the Vocational Education Amendments of 1968 for programs to strengthen the family and provide for expanded adult education programs has been allocated on a project basis to economically depressed areas or areas designated with high rates of unemployment. Michigan is usually considered an industrial State. However, approximately one-half of the counties in the State have one or more school districts classified as "economically depressed." Approximately three-fourths of the Michigan counties are areas with persistent or substantial unemployment. The earmarked funds have provided the resources for specialized services in addition to local efforts to reach both youth and adults in the innercity as well as some of the more remote areas in the upper peninsula. Reaching minority groups in particular has been a priority. Among these groups are non-English speaking persons, migrants, Indian families and others with severe handicaps.

A variety of services and educational programs have been initiated throughout the State. Success is realized in reaching some homemakers who could not attend other types of classes through programs set up in public housing units and neighborhood groups. Instruction has included help in child care and guidance, money management, home improvement, feeding the family, citizenship responsibilities and frequently ways to use other community services. Consideration has been given to projected needs of groups presently not being reached. These include the increasing numbers of dropouts, postsecondary students, the elderly senior citizen, and the increasing numbers of low-income families. Additional funds are essential for the expansion of consumer and homemaking education to maintain and expand the momentum generated with part F funds.

Home economics consumer and homemaking programs were offered in: Beginning courses (grades 9 and 10) and 1 year comprehensive home economics; advanced courses (grades 11 and 12) dealing in the specialized subject matter courses of home economics for college or career bound students, child development, clothing and textiles, consumer education, family health and home nursing, family relations and family living, foods and nutrition, home management, and housing, home furnishings and/or interior decoration.

In 1971-72 an additional 2,865 disadvantaged youth and adults were involved in special funded projects from part F, consumer and homemaking funds. In some projects such as "Forum for Families", in Detroit, youth and adults were involved in joint activities. Consumer education is considered an essential purpose in each project in addition to basic homemaking skills needed by the individuals participating. "Project HOME", sponsored by Delta College, is designed for the new home owner and family to assist them with ownership responsibilities in federally funded housing facilities.

Requests for 1973-74 far exceed the amount of available funds for part F, consumer and homemaking. Community colleges are interested in expanding their services to disadvantaged persons including the large numbers of senior citizens.

Funds for equipment are needed to expand services. For example, mobile units could be used to reach families in the more remote areas as well as the metropolitan sections.

The 1963 act provided funds for family life education, adult education in both consumer and homemaking, leadership for the Future Homemakers of America, State supervision for all vocational home economics programs, inservice education (workshops, conferences), regional and State meetings, travel funds, and State advisory committees. The repeal of this act would eliminate the foregoing types of services. In addition, the earmarked funds for disadvantaged would also be curtailed.

The cost of maintaining a student in a home economics course is a fraction of the cost of maintaining a teenager in a reform school or of treating them for drug addiction or emotional disturbances or of maintaining a broken family on public assistance. One of the greatest lacks in education today is the failure of schools to help prepare youth for family responsibilities including economic competencies in managing resources.

In addition to the educational needs of our youth, it is extremely important for education to consider its responsibility to the elderly, a segment of our population which has the lowest income, poorest health and specialized needs in several areas.

REGULAR CO-OP PROGRAM ENROLLMENTS

	1963	1968	1972	1977
Agriculture			231	500
Distributive education	3,103	7,419	8,751	9,800
Health		668	1,328	1,800
Home economics:				
Consumer			164	
Wage earning			662	900
Office	3,736	7,922	7,136	8,900
Technical			384	900
Trade and industry	2,151	4,736	5,372	7,300
Totals	8,900	20,745	24,028	30,100

Co-Op G Programs

The Vocational Education Amendments Act of 1968 provided funds for new and expanded cooperative programs under part G of the act. Such programs have been designed primarily for the purpose of assisting disadvantaged secondary and postsecondary students in developing those concepts, skills, understandings, and attitudes necessary to adjust to the work environment and thereby gain occupational competency consistent with their career interests.

	1968	1972	1977
Number of school districts	(1)	44	527
Number of students served	(1)	2,565	29,500

(1) None.

This year (1972–73) 67 schools meeting the priorities established for funding requested funds to serve 3,982 students. However, due to insufficient funds, part of these schools will not be funded and program expansion will be greatly curtailed.

If adequate funding is available in 1977, the projection is 22,000 secondary and 7,500 postsecondary students who need to be served.

e. Work Study

Funds for work study (part H) programs are for students needing financial aid in order to remain in school as a full-time student and complete their vocational training program. The target population for the use of these funds has been local educational agencies in areas of high concentration of youth unemployment or school dropouts.

The lack of funds has prevented local educational agencies from serving all eligible students. With the funds made available, the following chart indicates progress made:

	1963	1968	1972	Projected 1977
Number of school districts	(1)	80	52	527
Number of students served	(1)	[2] 2,847	1,420	5,900

(1) None.

[2] In fiscal year 1968, Michigan received $120,444 in Federal funds more than was received in fiscal year 1972.

f. Research and Training

Part C research funds have been utilized in four major areas of vocational education:

1. Development of an individualized vocational education curriculum based on performance objectives which in turn are based on task analysis.

2. An information management system for vocational teachers that will enable them to effectively act as classroom managers in an individualized instructional program.

3. Development of a competency based vocational teacher education program, and

4. Development of a vocational education information support system that will provide data for effective State level program management.

Each of these programs are significant in development of a comprehensive vocational education program in Michigan. Each of these programs are coordinated so that the total effort will result in improved vocational education programing in Michigan. These projects have received national recognition because they address vital concerns in improving vocational education.

STATE ADVISORY COUNCIL

Most significant contributions (1968–73)

1. Kaufman, "The Costs of Vocational and Non-Vocational Programs," Michigan State Advisory Council for Vocational Education, 1972

This study made it possible for Michigan to reimburse instructional programs on the basis of the costs of such programs over and above costs of education in general with a resulting increase in State funds. Programs are reimbursed on a priority basis according to greatest employment demand as shown by the Michigan Employment Security Commission.

2. Meaders, "Opinions About Vocational Education in Michigan," Michigan State Advisory Council for Vocational Education, 1971

This study provided valuable information needed for program planning and development by gathering opinions from a sample of 1968 graduates, their parents, and their employers about the importance, adequacy, and appropriateness of vocational education in Michigan.

3. Study of local advisory councils in Michigan, Michigan State Advisory Council for Vocational Education, 1973 (unpublished)

This study will be published soon but results have already been shared with vocational educators. It provides valuable information on the use and effectiveness of advisory councils by local educational agencies.

4. The State Advisory Council has engaged in several significant public relations activities such as:

(*a*) 30-second and 1-minute TV clips of the Governor of the State describing opportunities for occupational preparation through vocational and technical education in Michigan with on-the-spot action pictures of instruction in progress. These will be shown by 20 TV stations and companion tapes will be broadcast by the various radio stations covering Michigan and parts of neighboring States.

(*b*) 500,000 place mats describing vocational education in Michigan were provided for use at banquets and similar functions across the State.

(*c*) 15,000 copies of a popular version of the Council's annual report are distributed each year bearing such titles as "The Name of the Game is Jobs" and "Career Education in Michigan."

(*d*) 18,000 brochures entitled "Choosing your Career" were printed to supplement the 50,000 distributed by the vocational education and career development service.

(*e*) Four public meetings are held across the State each year to get feed back from local people for basing recommendations on improving vocational education in Michigan.

(*f*) Two statewide symposiums involving national and State leaders in business and industry, labor, government, and education have been conducted by the Council.

(1) Federal responsibility for vocational education.

(2) Career education, employment, and unemployment.

Actions Taken in Response to Recommendations

Recommendations made by the Michigan State Advisory Council for Vocational Education have been paraphrased below and used as headings. Each heading is followed by a short description of response(s) made to each recommendation.

1. Vocational education should be available to more students

(*a*) Increase the capacity to instruct students. Twenty-two area vocational education centers have been established.

(*b*) Co-op programs for all high school students. Objective in State plan: To increase the number of K–12, districts and community colleges providing co-op education.

2. Place greater emphasis on occupational counseling, guidance and placement services.

(*a*) More funds should be allocated. Funds have been increased from $265,000 to $588,313.

(*b*) Support should be provided for workshops. Activity in State plan: Provide occupational guidance counseling and placement workshops.

(*c*) Objectives should be prepared as part of the State plan. Objectives were provided on three pages of the State plan covering secondary, post secondary, and adult counseling, guidance and placement services.

(d) Pilot programs should be initiated. Nine pilot placement projects have been funded.

(*e*) Provide programs of career exploration and occupational information. Five world of work pilot projects have been funded in grades K–12.

(*f*) Occupational counseling, guidance, and placement as an integral part of all programs. Goals appear on three pages of the

State plan with a target of all K-12 districts and community colleges accomplishing this by 1977.

Guidelines for developing placement services have been developed for launching an expanded followup study of vocational-technical students and to provide a sample followup of nonvocational secondary school graduates.

3. Promote curriculum development:

(*a*) Disseminate results of curriculum development and research projects. Goal in State plan: To disseminate innovations and other information to all local educational agencies.

(*b*) Provide field services for assisting in implementation: 33 career development workshops were provided in the State: State staff liaison persons are assigned to 49 career education planning districts in the State.

(*c*) Provide students choices of four or more major occupational areas. Goal in State plan: To increase the number of school districts making available a minimum of 25 OE code instruction programs in accordance with the area plan.

4. Increase public awareness of availability of vocational education: A brochure "Choosing Your Career" was published March 1972. An inventory of program offerings at the secondary and postsecondary levels has been prepared. Planning Districts (CEPD) have been established to cover the entire State.

5. Involve students, parents, and employers in planning and evaluation:

(*a*) Advisory committee review of curricula. Goal in State Plan: To require the use of local advisory committees in planning and evaluating local occupational education programs.

(*b*) Involve teachers, coordinators and counselors in the review. Each planning district has a coordinating council consisting of 25-50 persons representing instructional personnel and administrators from secondary and postsecondary institutions and an approximately equal number of representatives from business and industry, labor, local agencies, and groups established for the purpose of preparing a comprehensive annual plan for vocational-technical programs. This includes plans for joint utilization of facilities and staff, articulation of programs, new programs needed, and equipment.

SUMMARY AND RECOMMENDATIONS

The interest in vocational education is at an all time high in the State of Michigan. This is very much in evidence by the increased number of programs and people served. Perhaps even more important is the improved image and the realization on the part of students, parents, legislators, and school administrators that vocational education is an extremely important, viable part of career education.

(*a*) Some arrangement should be made to provide States with more definite information on appropriations and this information should be made available at an earlier date.

(*b*) Consideration should be given to 2 year funding in order to provide State and local educational agencies greater lead time for planning purposes.

(c) Efforts should be made to maintain or expand the current central staff in the U.S. Office of Education. Present regional offices are working out satisfactorily, but further regionalization would tend to negate the benefits of central leadership.

(*d*) Better Schools Act of 1973:

1. At this point in time it is difficult to conceive how it would be possible to administer special revenue sharing for education for the 1973–74 school year. Until more information is received, it is difficult to react to the legislation. Generally the specific bill is considered negatively.

2. Vocational education has grown tremendously since the 1963 act was passed and under the Vocational Amendments of 1968. There is much to be said for a line item budget for vocational education if growth of the past few years is an indication.

MINNESOTA

State Director—Robert P. Van Tries

INTRODUCTION

During the past 10 years vocational-technical education in Minnesota has experienced tremendous growth. The following table shows the total enrollments in secondary, postsecondary, and adult:

	1963	1968	1972	1977
Secondary	37,342	71,046	81,677	[1] 85,000
Postsecondary	1,797	9,826	20,168	28,925
Adult	63,426	87,070	111,407	131,970

[1] 9th grade vocational education is not included in the 1977 projection because it will no longer be reimbursed.

It should be noted that the growth during this period of time has been greater than the comparable increase in Federal financing. The Minnesota Legislature has annually increased its financial commitment to vocational-technical education to a greater degree than has the Federal Government. State budgets have nearly doubled every 2 years. The success of the vocational-technical programs at the several levels has been observed and received by the State legislature with considerable satisfaction, resulting in financial commitment.

PUBLIC LAW 90–576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

a. Job Training Enrollments

The figures on the following page were taken from the 1963, 1968, and 1972 Federal reports. The 1977 projections were obtained from table I of the first year 1973 Minnesota State plan for vocational-technical education.

Area	1963	1968	1972	1977
Agriculture:				
Secondary	14,492	14,471	18,862	11,000
Postsecondary	373	416	889	1,200
Adult	25,666	12,956	14,657	15,300
Total	40,531	27,843	34,408	27,500
Business and office:				
Secondary	(1)	15,789	7,423	11,000
Postsecondary	(1)	1,494	3,581	5,500
Adult	(1)	6,865	17,568	20,354
Total	(1)	24,148	28,572	36,854
Distributive education:				
Secondary	546	3,600	6,894	11,000
Postsecondary	23	550	1,906	3,835
Adult	4,833	5,714	7,021	12,416
Total	5,402	9,864	15,821	27,251

Area	1963	1968	1972	1977
Health:				
Secondary	46	[1]	491	6,200
Postsecondary	682	1,044	2,687	3,990
Adult	191	172	1,851	3,400
Total	919	1,216	5,029	13,590
Technical:				
Secondary	0	0	60	0
Postsecondary	0	1,487	2,287	2,400
Adult	0	4,705	5,703	7,200
Total	0	6,192	8,050	9,600
Trade and industrial:				
Secondary	0	1,951	6,246	12,000
Postsecondary	719	4,835	8,818	12,000
Adult	14,719	35,343	40,145	43,300
Total	15,438	42,129	55,209	67,300

[1] Not available.

b. General Description

The increase in job training programs for both youth and adults is easily observable in the figures from the previous section. The most profound expansion in Minnesota took place in the postsecondary level during the past 10 years. The past decade has seen postsecondary enrollments increase from 2,000 students to 21,000 students. During this same period of time programs have been initiated in over 300 occupational areas.

Federal funding has been most influential in providing assistance to the State in the construction of facilities. Operationally, Federal funding has contributed barely 5 percent of the expenditures.

c. Postsecondary Courses

At the present time Minnesota has 33 area vocational-technical institutes offering classes in occupational areas at the postsecondary level. The following are the enrollments at these institutions:

Area vocational-technical institutes

1963	3,599
1968	11,401
1972	20,939
1977	31,000

In addition to the area vocational-technical institutes, classes are offered through the junior colleges where, because of geography, ready access is not available to the institutes. The following are enrollments within the junior colleges:

Junior colleges

1963	0
1968	200
1972	1,534
1977	2,000

The postsecondary offerings in Minnesota have maintained a high degree of quality and are presently riding a crest of popularity with students. Approximately two students for each available space were turned down in the past year. Even with the tremendous growth which has taken place in the past 10 years, the system is unable to provide sufficient program offerings.

d. Disadvantaged Students:

(1963). No statistics are available.

(1968). Relatively few funds were used in programs especially designed for disadvantaged students to succeed. Enrollment figures indicated that approximately 5,200 being served in regular programs were classified as disadvantaged. The effect of the mandate of the Vocational Act of 1968 had its impact on vocational programing for disadvantaged at that time.

(1972). By 1972 the disadvantaged (part B) moneys had generated new programs which were not available to students in Minnesota prior to this time. The most popular of the programs was the work experience for the disadvantaged. A total of approximately 9,800 disadvantaged persons were identified and served with $1,244,947. As a result of a formula developed by the vocational-technical division, an additional $800,000 was generated in State and local funds.

(1977). Additional programs for the disadvantaged can be projected in the State of Minnesota. It would be safe to say that programs for the disadvantaged could be doubled or tripled if additional funds became available. By 1977 we would still be just scratching the surface of the number of disadvantaged students who could profit by vocational training.

e. Handicapped Students:

(1963). No statistics are available.

(1968). For many years handicapped persons had been served in the vocational-technical system in Minnesota. The number of dollars reported in 1968 was quite insignificant as most of the handicapped were being served in regular programs. The effect of the mandate of the Vocational Act of 1968 had not yet had an impact on vocational programming for the handicapped. Approximately 2,800 students were reported during fiscal year 1968.

(1972). By 1972 the handicapped (part B) moneys had taken affect in Minnesota. Programs throughout the State had been devised to either lend supportive services to regular programs or to modify curriculum in special education programs in which handicapped persons could succeed and become useful, productive members of society. The most popular of the special programs was the work experience for handicapped. The handicapped in these programs were given real work as a vehicle to adjust and to modify their behavior so that they could compete in the labor market. A total of 5,270 handicapped students were reported as having received special services as a result of the part B set-asides. Minnesota's allocation was $713,913. As a result of a formula devised by the vocational-technical division, another $450,000 was generated in State and local funds.

(1977). Additional programs for the handicapped can be projected in the State of Minnesota. It would be safe to say that programs for the handicapped could be doubled or tripled if additional funds became available. By 1977 we would still be scratching the surface of the number of handicapped students who could profit by vocational training.

f. Adults:

Part B funds are used in regular retraining programs for currently employed persons as well as apprentices engaged in formal training programs. These enrollments are shown below as compared to those funded through manpower funds:

	1963	1968	1972	1977
Adult	63, 426	87, 070	111, 407	131, 970
Manpower	2, 095	4, 650	5, 292	3, 100

g. Financing:

(i) The following pages, reproduced from the 1974 Minnesota State Plan for Vocational-Technical Education, show the distribution method of part B funds among local and other agencies. As indicated previously, Minnesota uses its part B funds predominantly for postsecondary education, which consists of a statewide system of 33 area vocational-technical institutes. All students in the State have access to these institutes; and, therefore, the State constitutes a single region. Matching fund formulas within a State such as Minnesota is more costly in accounting than in providing the intent of the legislation.

Also, the State support system within the elementary/secondary schools that exceeds 75 percent State funding almost negates the ability-to-pay factor.

In terms of meeting local manpower needs, the State has two generalizable areas within its economy—its metropolitan industrial area and its outstate rural communities. Considerable data is drawn by the educational systems in attempts to identify manpower needs. However, these efforts at best are meager; and, when combined with literally no reinforcement information from the Department of Labor, the variable is not of appreciable use. Similarly, excess costs are extremely difficult to gather with accuracy. However, recent research projects have identified determinants whereby accurate estimators can be utilized.

The identification of persons to be served has been extremely expedited since the 1970 census, and population groups have been better identified and categorized.

With the low percentage of Federal funding in the total programs, the distribution requirements seem futile.

3.27 *Application of Criteria in Determining the Relative Priority of Local Applications.* **The State Board will consider the following criteria in allocating federal funds to local education agencies:**

1. **Manpower needs and job opportunities.**
2. **Persons to be served.**
3. **Relative ability to pay.**
4. **Excess costs.**

The specific subcriteria, the weighting procedure and the formula for allocating funds to local education agencies is described in the following material:

$$\frac{\text{Federal Funds Available}}{\text{Total Expenditures}} = \text{Statewide Average Federal Reimbursement Percentage}$$

$$\boxed{\text{Allocation of Federal Funds to Local Education Agencies}} = \boxed{\text{Statewide Average Federal Reimbursement Percentage}} \times \boxed{\text{Sum of Weighted Criteria Scores}}$$

Criteria	Weight	Top score	Median	Low score
Manpower needs	.2	2.0	1.0	0
Population needs	.4	2.0	1.0	0
Ability to pay	.2	2.0	1.0	0
Excess costs	.2	2.0	1.0	0

For each criteria on which the local education agencies will be ranked, the median will be called 1.0 (so that the sum of the average weighted scores will be 1.0). The scores will range from 0 to 2.0, with an unlimited number of differential available by use of the decimal. The objective is to provide encouragement for improvement. The ranking of local education agencies to which the criteria scores will be applied will be done on the basis of change from a preceding year. The median will be scored 1.0 so that the sum of the average criterion scores that will be multiplied against the total Federal funds available will be 1.0. Where a criteria is composed of more than one subcriteria, the scoring is done by dividing the median score by the number of subcriteria. Special projects, however, will be considered for funding on a project basis rather than on a state-wide formula.

1. Manpower Needs: The formula will encourage vocational programs that meet the manpower objectives in the State according to three criteria:

(*a*) Meeting the needs based on employment expansion.
(*b*) Producing skilled manpower in areas of high manpower need.
(*c*) Meeting a higher percentage of the total labor market demand.

Local education agencies will be ranked according to the percentage of the regional manpower needs being met. The rank order differences will then be ranked to obtain the criteria scores.

2. Population Needs: The formula will encourage local education agencies to meet the population needs for vocational education as follows:

The resident vocational enrollment in secondary, post-secondary, and adult programs will be determined. These enrollments will be combined with the local education agency's programs and services for the disadvantaged and handicapped. The combined program performance in terms of student hours of instruction will be aggregated to determine fulltime equivalent vocational enrollment. The full-time equivalent will be applied against the resident seventh through twelfth grade enrollment which will be used as an index. The rank order differences will then be ranked to obtain the criteria scores.

3. Ability to Pay: The formula will reflect the ability of local education agencies to support cost of vocational programs. The local education agencies will be ranked according to EARC value per pupil unit (as described in 3.26–3 of this part) in order from the lowest to the highest. The rank order differences will then be ranked to obtain the criteria scores.

4. Excess Costs: The formula will consider the cost of programs in relationship to the unusual but necessary financing for vocational education by the local education agency. The local education agencies will be listed in order of their average per student expenditure by level of vocational program. The rank order difference will then be ranked to obtain the criteria score.

(ii) The following table shows the expenditure distribution within the two major cities in Minnesota:

	Minneapolis	St. Paul
Total population	434,000	308,600
Percentage of state population	11.13	7.91
Federal funding	$709,526	$778,356
Percentage	7.92	8.69
State funding	$1,513,074	$ 1,973,394
Percentage	4.35	5.68

The above expenditures for the major cities appear to reflect a lower financial commitment to these areas. However, an analysis of the populations needing service, particularly the age range 14 to 25, will show that the expenditures are considerably above the State average.

Time restraints prevented summarizing breakouts on poor rural areas.

h. Construction and Equipment

The following table shows allocations to construction of area vocational-technical institutes by source of funds:

	State and local	Federal
Year:		
1963	(1)	(1)
1964	(1)	(1)
1965	$6,000,000	$1,297,604
1966	2,464,182	1,685,576
1967	2,151,202	1,467,893
1968	1,831,322	1,831,322
1969	1,197,444	1,119,113
1970	1,905,262	1,905,262
1971	32,508,980	1,970,000
1972	1,890,872	2,526,263
1973	3,500,000	2,000,000
1974	3,000,000	2,000,000
1975	3,000,000	2,000,000
1976	3,000,000	2,000,000
1977	3,000,000	2,000,000

[1] Not available.

NOTE.—Equipment investment is not categorically available.

PUBLIC LAW 90–576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

There were no exemplary programs and projects in Minnesota in fiscal year 1968. The first project of an exemplary nature was initiated in fiscal year 1970, with the development and implementation of a pilot study for a delivery system designed to provide secondary vocational-technical education to students in rural schools. Since that time numerous exemplary projects have been designed and implemented which address the needs of vocational educators and students in Minnesota. The exemplary projects for fiscal year 1972 are shown in outline form on the following page, with the focus and target population of each included.

It should be noted that the projected figures for 1977 presented in the table describe only those persons at a particular site, location, position, or field of endeavor who will be directly affected. It does not take into account the "snowballing" effect which occurs in several of the projects—that is, persons provided services directly are in turn expected to use their newly acquired competencies in assisting others. As a case in point, personnel from Project Opportunity will be passing along their expertise in individualizing training in the health field at a regional workshop to be conducted in the near future.

The progress to date has resulted in several significant trends in Minnesota. The needs of students have been and will be better addressed through systems which allow more flexibility in entering, progressing through, and exiting from vocational-technical training. Likewise, information prerequisite to career decisionmaking is more readily available on a systematic basis to those who need it. In the same manner, opportunities for incorporation of career education programs at school levels are being accelerated through the demonstration sites and dissemination practices which have been incorporated into the total program. In brief, the progress made through these exemplary programs has resulted in outcomes which could not otherwise have been achieved for 5 to 10 years, if then.

Program	Target population	Focus—Purpose	Number of persons served	
			1972	1977
1. Developing articulated high school and post high school vocational curriculum.	Secondary and post-secondary vocational students and teachers.	Develop a system for identifying and designating course content appropriate to secondary and postsecondary vocational programs; provide advanced standing to students for competencies possessed.	(1)	15,000
2. Project opportunity (an individualized approach to training licensed practical nurses).	Postsecondary students	Develop and implement a system of individualized instruction addressed to: (1) building upon relevant past experience, (2) an open-entry/open-exit enrollment system, and (3) the learning rate of individual students.	250	3,000
3. View and match project	Secondary and post-secondary students.	Provide guidance-counseling information relative to programs and training stations available at area vocational-technical institutes	4,500	7,000
4. Burnsville Senior High School career exploration.	Secondary students	Provide career exploration opportunities to senior high students in a large suburban school.	300	500
5. Fashion merchandising career exploration learning materials project.	do	Provide guidance-counseling materials on career opportunities in the fashion merchandising field.	(1)	600
6. Career education for urban youth.	Teachers K–12	Provide orientation and inservice training concerning career education concepts to teachers in a large urban area.	270	1,800
7. Career education workshop for elementary teachers and administrators.	Elementary teachers and administrators.	Provide orientation and inservice training on the concepts of career education.	160	1,200

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[1] Developmental, in process.

b. Residential Vocational Education

Not applicable.

c. Consumer Homemaking and Occupational Home Economics

Enrollments in consumer homemaking and occupational home economics are listed in the chart on the following page.

Since 1968 consumer education and family life programs have been developed for Mexican-American migrant workers, residents of low-income housing, senior citizens, AFDC mothers, and mentally retarded adults. The program has grown from 0 in 1968 to serving 20,000 people in 1972.

	Secondary	Adult	Total
1962-63 (fiscal year 1963): Vocational home economics	22,258	18,017	40,275
1967-68 (fiscal year 1968):			
Home economics useful employment (homemaking)	35,000	21,315	56,315
Home economics gainful employment	235	0	235
1971-72 (fiscal year 1972):			
Part F, consumer homemaking:			
Total	40,000	20,582	60,582
Disadvantaged	60	16,234	16,294
Handicapped	0	663	663
Part B, occupational home economics:			
Total	1,701	3,880	5,581
Disadvantaged	0	0	0
Handicapped	0	129	129

The following table shows the number of cooperative students by area:

Cooperative Vocational Education

	1963	1968	1972	1977
Agriculture	0	0	690	700
Business and office	20	1,360	1,797	2,000
Distributive education	27	1,815	3,458	4,000
Home economics	0	0	271	300
Home economics occupational	0	0	1,418	2,000
Health	0	0	0	0
Technical	0	0	0	0
Trade and industrial	0	775	1,519	2,000
Total	47	3,950	9,153	11,000

Expansion has far exceeded the Federal funding under either part G or part D, with considerable local and State funds being expended for cooperative programs.

e. Work Study Programs:

(1963). No statistics are available.

(1968). Minnesota received $180,944 (pt. H) from the Vocational Act. Because of the uniqueness of the post-secondary programs in Minnesota, it was designed that all work-study funds would be used in the post-secondary system. Seven hundred twenty-seven students were helped financially. It is safe to say that 90 to 95 percent would have had to drop out of school temporarily or permanently had it not been for the financial assistance received from work-study.

(1972). Due to a cutback in work-study funds, Minnesota's allocation was reduced to $112,000. The number of students served by these funds was also reduced by approximately 100 (to 623). As in previous years, many students were placed in the labor market with salable skills as a direct result of part H funds.

(1977). College work-study funds, if allowed in the area vocational-technical institutes in Minnesota, will greatly assist the students in our post-secondary programs. Minnesota feels that there is still a need for a vocational work-study program as the regulations governing college work-study would eliminate a number of students who need financial assistance. Many examples can be sighted that, because of obstinate parents, individuals may be denied vocational training if funds are not available to assist them in completing their vocational education.

f. Research and Training:

Part C funds have been proven to be an invaluable resource in the planning and conduct of research and development projects in the State of Minnesota. Basically, the purpose for which these funds have been used can be grouped under the major headings of: (1) The design, development, and implementation of selected aspects of a total information system for vocational educators; (2) the pursuit of knowledge and/or information relevant to vocational-technical education; and (3) evaluation activities. In addition, an exemplary project in career education involving eight sites is funded from part C discretionary funds (shown on the following pages).

The utilization of these funds has resulted in several significant, tangible outcomes. Notable among these has been the development of a comprehensive follow-up system for graduates of post-secondary vocational-technical institutes. This system has provided vocational educators with information concerning the nature and quality of the graduates of their institutions. Information of this kind is prerequisite to any systematic effort aimed at program improvement and system and accountability. In addition to program improvement, the information derived from this system provides essential input concerning vocational program planning and development. To date, vocational-technical education alone among the systems of higher education in Minnesota has developed and implemented a follow-up system.

A second project utilizing part C funds, but with a different purpose than the foregoing, has involved administration of vocational guidance tests in Minnesota schools. While educational tests (MSAT) have been given for years to students in their junior year in high school, it has only been recently that provision was made for the administration of vocational guidance tests so that students anticipating enrollment in vocational-technical institutes could be more adequately served. With the continued rise in enrollment in secondary vocational-technical programs commensurate with the decline in enrollment in academic programs, the need for and value of this information becomes more readily apparent. There is little evidence to indicate that this trend will change in the near future.

MINNESOTA—EXEMPLARY PROJECTS IN CAREER EDUCATION, FUNDED UNDER SECTION 131(a) OF PART C OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 (PUBLIC LAW 90-576), FOR FISCAL YEAR 1973

Project title	Sponsoring school(s)	Description of local projects
A comprehensive exemplary program "Orientation to the World of Work" (career development K-12).	Independent School District No. 94, Cloquet, Minn.	A comprehensive career education program has been developed and implemented at Cloquet with the assistance of community resource people. It is aimed at providing all students throughout their entire educational experience (K-12) a series of related, comprehensive, systematically planned career educational activities. Emphasis on self-concept and attitude development of the student will continue at the elementary level, with an interdisciplinary approach and exploratory work experience programs utilized at the junior and senior high school levels, respectively. Performance contracting has been used as one means of developing and testing curriculum materials and encouraging staff involvement in the project.
Project TACO: Technology assisted career orientation.	Independent School District No. 279, Osseo, Minn.	Three goals, summarized as awareness, appreciation and attitude, and decisionmaking, form the basis for a comprehensive career education project for one of the smaller suburban school systems in the metropolitan area. The project is being conducted on a pilot basis in the district with four elementary schools, three junior high schools, and the counseling and guidance departments in the senior high schools involved. Objectives have been developed and activities initiated which consider the needs of students, teachers, and the community.
Career awareness education	Independent School District No. 761, Owatonna, Minn.	The career education project at Owatonna includes staff and students from both public and parochial elementary schools. All students and staff at this level are currently involved. Considerable effort has gone into the development of curriculum materials with a view to integrating career information into the ongoing curriculum. The goals of this project are: (1) To modify the attitudes of educators toward career development, (2) to change the attitude of the community toward a career awareness program, (3) to integrate career awareness materials into the elementary curriculum, and (4) to develop in students a positive attitude for all types of jobs.
Students, parents and teachers explore the world of work in southeastern Minnesota.	Independent School District No. 810, Plainview, Minn., and Winona AVTI, Winona, Minn.	Plainview has used a two phase procedure in implementing career education in its school system. The project started in its initial phase at the elementary level, K-6, with an upward progression into grades 7-9 in the succeeding phase. All learning experiences at both levels are integrated into the existing curriculum. Games, demonstrations, skits, role playing, and audio-visual materials are used in the classroom in teaching about the World of Work, while field trips, resource people and individual and group projects are modes of instruction used outside the classroom. In addition to learning about the World of Work, emphasis will be given to teaching students about hobbies and leisure time activities.
Red Wing Public School.	No. 256, Red Wing, Minn.	an articulated, comprehensive (k-12) career education program to be conducted in 6 elementary schools, a junior high school and a senior high school. Principals of the elementary schools will aid in orientation of teachers in World of Work concepts. Each building principal will aid teachers in planning, promoting, and establishing career education projects within the classrooms, building, and the community. At the elementary level there is a strong emphasis for parents to be called upon to serve as resource persons. Exploratory experiences at the junior high school have been included as specific units and projects within subject matter classes. These will be expanded during the year with increasing activity from the various departments. Likewise, at the senior high school level projects have been initiated in various subject matter fields. In addition provisions for work experience and student job placement services are being developed.

MINNESOTA—EXEMPLARY PROJECTS IN CAREER EDUCATION, FUNDED UNDER SECTION 131(a) OF PART C OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 (PUBLIC LAW 90-576), FOR FISCAL YEAR 1973—Continued

Project title	Sponsoring school(s)	Description of local projects
A developmental career development elementary program for independent school district No. 623.	Independent School District No. 623, Roseville, Minn.	The career education project at Roseville is focusing on the elementary level, K-6. Its purpose is to develop and test effective methods for teaching occupational awareness in the context of a large urban elementary school system. As such, the project has expanded horizontally from its pilot phase to include numerous schools, teachers, students, and counselors at the elementary level. Considerable emphasis has been given, at this site, to the evaluation component of the project.
The relevance of community resources toward the development of understanding occupational opportunities and the significance of the world of work in the Willmar Public School.	Independent School District No. 347, Willmar, Minn., Willmar Area Vocational-Technical Institute.	The development of an articulated comprehensive career education program for a predominantly rural community represents the thrust of the project at Willmar. The project has progressed through a series of phases, involving the elementary, junior, and senior high schools. Major emphasis has been placed upon identifying and using community resources in the instructional process. Most of the project focus will be accomplished through the existing curriculum as correlated to the identified resources of the community. Separate career guidance activities are also an integral part of the project.
A career development program, Grades 7-9, for independent School district No. 624.	Independent school district No. 624, White Bear Lake, Minn.	White Bear Lake is a recent addition to the career education exemplary project, having been chosen as a replacement site for another suburban school. The focus at this site will be on the junior high school level (7-9) with 2 public schools and 1 parochial school involved. The project will utilize performance contracting and begin with "already developed" curriculum materials procured from throughout the Nation.

STATE ADVISORY COUNCIL

Minnesota utilized an advisory committee long before the mandate from the Federal Government for such a council. Therefore, significant historical change is difficult to assess. Since 1969 the Minnesota Council has produced several public reports and made numerous recommendations, most of which were directed toward the total educational structure at the State and Federal levels. The majority of their recommendations have been directed at either the Congress or the State legislature, with little action being directed toward local or State governance.

SUMMARY AND RECOMMENDATIONS

During the past 10 years vocational education has experienced the greatest growth of any segment in the State of Minnesota. This is borne out not only in the numerical observation of enrollments but also in the evaluatory information available on the graduates. An extremely high percentage of the graduates find financial and social success through their vocational experience. Unfortunately, this growth—while great— has not kept pace with the demand for vocational training. Much work is yet to be done to serve the needs of Minnesota.

The following are offered as recommendations to Congress to assist in expediting the attainment of necessary services:

1. Increase the level of Federal funding to a rate commensurate with the commitment of State and local agencies.

2. Reduce the reporting structures that are required by the U.S. Office of Education. Of particular concern is the requirement of extensive planning within specified formats, having at the same time specific reporting structures that are not comparable to the planning documents.

3. Congress should carefully examine its requirements for extensive planning if it is unwilling to appropriate funds upon which to plan. Many man-hours are wasted in planning alternatives because it is not known how much money will be available and when it will be available. Such is the case at the present time.

4. The reorganization of the U.S. Office of Education should be done permanently. Centralization or decentralization has become less a frustration than the fact that during the past decade reorganization has been a constant trauma with personnel in the U.S. Office of Education. State staff seldom know who their current contact person is nor how long they will be dealing with a particular individual. This has led to considerable discontinuity and decision reversal as well as confusion.

5. No recommendation is made in regard to the Better Schools Act in that until it has been worked out in finer detail and State decisions are made, its impact on the system is unquantifiable and unpredictable.

MISSISSIPPI

State Director—Troy V. Majure

INTRODUCTION

It is felt that vocational education enrollments in Mississippi have made excellent growth since 1963, and it is believed that the atmosphere is now right for a rapid growth in the future. Even though the growth in enrollment has been satisfactory it is thought that the most significant improvement in vocational education in recent years has been expanding the vocational education offerings to students. In 1963 most students were offered only agriculture or home economics, but now most students have a choice of several types of training. As rapidly as funds have become available local school districts have been assisted in constructing and equipping vocational education facilities that would enable the schools to offer a comprehensive program. The facilities for offering post secondary vocational education are presently adequate for meeting the need. The need for providing secondary facilities for offering comprehensive programs in vocational education has been only half met. If these additional needs are met in the future local school districts must have help from the State and Federal governments. Even though considerable progress has been made toward reaching people with special needs, not nearly all of the needs have been met. Therefore, special programs for handicapped and disadvantaged people will be needed in the future and Federal funds are an absolute necessity. Remedial education for many students in vocational education is necessary if these students are to make satisfactory progress in their occupational training. Additional funds are needed to provide this extra assistance to these disadvantaged students. The total vocational education enrollments for 1963, 1968, 1972, and the projection for 1977 are given below.

1963	96,285
1968	102,564
1972	115,285
1977 [1]	164,358

[1] Based on objectives projected to 1977 and increased funding to provide services to youth and adults.

In fiscal year 1972, in addition to the 115,285 students who were enrolled in vocational education, 25,000 were enrolled in career education. In fiscal year 1977 it is estimated that 118,000 additional students will be enrolled in career education.

PUBLIC LAW 90-576 PART B—STATE VOCATIONAL EDUCATION PROGRAMS

a. Job Training Enrollments

	1963	1968	1972	Goal for 1977
Total	55,804	67,371	81,453	125,954
Secondary	20,463	24,646	31,580	50,685
Postsecondary	812	4,591	8,812	13,479
Adult	34,529	38,134	41,061	61,790

It may be helpful for the above information to be broken down by the various services in vocational education, by years. This information is given below.

Job training area	Secondary	Post-secondary	Adult	Total
	Fiscal year 1963			
Agriculture	16,695	0	23,102	39,797
Distribution	500	9	3,770	4,279
Health	16	470	23	509
Home economics gainful	0	0	0	0
Office	0	0	0	0
Technical	184	333	1,692	2,209
Trade and industrial	3,068	0	5,942	9,010
Total	20,463	812	34,529	55,804
	Fiscal year 1968 [1]			
Agriculture	17,339	94	16,990	34,423
Distribution	753	230	5,017	6,000
Health	56	676	633	1,365
Home economics gainful	836	0	798	1,634
Office	374	1,109	3,941	5,424
Technical	37	896	3,294	4,227
Trade and industrial	5,251	1,586	7,461	14,298
Total	24,646	4,591	38,134	67,371
	Fiscal year 1972			
Agriculture	12,196	190	9,241	21,627
Distribution	1,928	408	4,135	6,471
Health	161	1,431	981	2,573
Home economics gainful	1,037	50	910	1,997
Office	976	1,729	5,146	7,851
Technical	1	1,220	6,954	8,175
Trade and industrial	7,991	3,784	13,694	25,469
Occupational orientation	7,290	0	0	7,290
Total	31,580	8,812	41,061	81,453
	Fiscal year 1977			
Agriculture	12,000	400	12,204	24,604
Distribution	5,065	1,071	10,861	16,997
Health	266	2,346	1,607	4,219
Home economics gainful	1,524	105	1,365	2,994
Office	1,466	2,613	7,744	11,823
Technical	0	1,378	7,872	9,250
Trade and industrial	11,656	5,566	20,137	37,359
Occupational orientation	18,708	0	0	18,708
Total	50,685	13,479	61,790	125,954

[1] Includes special needs students.

b. General Description

The growth in enrollments in vocational education in Mississippi is considered to be good. This growth is pictured in the enrollment figures given in (2)a above. However, when the vocational education job training enrollments are further analyzed it will be seen that considerable change had been made in the job training program. These changes have been made to meet the demands of the labor market. For example, agriculture enrollments have reduced from a total of 39,797 in 1963 to 21,627 in 1972, and these enrollments are expected to level out with a possibility of a slight increase in 1977. During this same period training in trade and industrial occupations has increased from a total of 9,010 in 1963 to 25,390 in 1972, and it is expected to increase to 37,359 by the year 1977.

Remedial education, as well as other special services, has been given to help students on all levels to realize more from their training. Also, some financial assistance has been given through work-study to students who needed this help in order to enable them to remain in school and take advantage of occupational training. Work-study was offered to students so long as funds were available, but all of the needs were not nearly met.

Cooperative type of vocational education has also increased as more funds were made available from the State and national levels. It is believed that this is the most effective method of teaching and much more funding is needed to further expand this type of education.

c. Postsecondary Courses

All of the postsecondary vocational education offered in Mississippi is through the junior colleges except some training that is given at the State prison at Parchman. The training at Parchman is considered postsecondary training but it is administered by the State prison board rather than by one of the junior colleges.

Every county in Mississippi is in a junior college district and there are enough vocational education attendance centers operated by the junior colleges to provide the training that is presently needed on this level. Recently startup training for new and expanding industries has been offered by several of the junior colleges and in some high schools. If the needs for this type of training are to be met much more funding is necessary.

d. Disadvantaged Students

	Regular students	Disadvantaged students	Total
Fiscal year:			
1963	55,804	0	55,804
1968	65,539	1,380	66,919
1972	72,311	6,779	78,790
1977	114,777	8,127	122,904

[1] Handicapped students and consumer and homemaking students are excluded from this table.

It is thought that Mississippi has made satisfactory progress in offering vocational education to disadvantaged students. Considering the fact that this was a new program that had to be started from scratch good progress has been made. A teacher education program had to be initiated to train teachers to meet the instructional needs of these people. Also, developing an instructional program to meet these specific needs of disadvantaged people took much time and caused some delay in the progress that was made. If adequate funds are made available, now and in the future, it is believed that excellent progress can be made.

Should more information be desired concerning regular students and disadvantaged students in Mississippi, the following tables giving the number of regular and disadvantaged students, by service, and by year, are shown below.

Program area	Regular students	Disadvantaged students	Total
	Fiscal year 1963—		
Agriculture	39,797	0	39,797
Distribution	4,279	0	4,279
Health	509	0	509
Home economics gainful	0	0	0
Office	0	0	0
Technical	2,209	0	2,209
Trade and industrial	9,010	0	9,010
Occupational orientation	0	0	0
Total	55,804	0	55,804
	Fiscal year 1968[1]		
Agriculture	34,263	160	34,423
Distribution	6,000	0	6,000
Health	1,323	42	1,365
Home economics gainful	1,321	300	1,621
Office	5,424	0	5,424
Technical	4,227	0	4,227
Trade and industrial	12,981	878	13,859
Occupational orientation	0	9.	0
Total	65,539	1,380	66,919
	Fiscal year 1972[1]		
Agriculture	20,971	656	21,627
Distribution	6,220	251	6,471
Health	2,106	467	2,573
Home economics gainful	1,330	667	1,997
Office	7,510	341	7,851
Technical	8,175	0	8,175
Trade and industrial	19,229	4,219	23,448
Occupational orientation	6,470	178	6,648
Total	72,011	6,779	78,790
	Fiscal year 1977[1]		
Agriculture	23,814	790	24,604
Distribution	16,695	302	16,997
Health	3,663	556	4,219
Home economics gainful	2,194	800	2,994
Office	11,413	410	11,823
Technical	9,250	0	9,250
Trade and industrial	30,011	5,054	35,065
Occupational orientation	17,737	215	17,952
Total	114,777	8,127	122,904

[1] Handicapped students are excluded from this table.

e. Handicapped Students

	Regular students	Handicapped students	Total
Fiscal year:[1]			
1963	55,804	0	55,804
1968	65,539	452	65,991
1972	72,011	2,584	74,595
1977	114,777	3,050	117,827

[1] Disadvantaged students and consumer and homemaking students are excluded from this table.

Through cooperation with other agencies it is considered that satisfactory progress has been made toward reaching the needs of handicapped people. Several problems had to be overcome in order to get vocational education for handicapped people in operation. One problem was getting enough of these people together at one place to organize a class. Other problems were training teachers to instruct this type of student and developing an instructional program. It is felt that these problems have been satisfactorily solved, and if funds are made available in the future excellent progress can be made toward meeting the needs of these handicapped people. Most people with handicaps are eager to learn to make their own living. Therefore, trying to meet the needs of these people is inspiring and encouraging.

Shown below are tables for fiscal years 1963, 1968, 1972, and 1977, giving a breakdown of regular and handicapped students by program area or vocational education service.

Program area	Regular students	Handicapped students	Total
	Fiscal year 1963 [1]		
Agriculture	39, 797	0	39, 797
Distribution	4, 279	0	4, 279
Health	509	0	509
Home economics, gainful	0	0	0
Office	0	0	0
Technical	2, 209	0	2, 209
Trade and industrial	9, 010	0	9, 101
Occupational orientation	0	0	0
Total	55, 804	0	55, 804
	Fiscal year 1968 [1]		
Agriculture	34, 263	0	34, 263
Distribution	6, 000	0	6, 000
Health	1, 323	0	1, 323
Home economics, gainful	1, 321	13	1, 334
Office	5, 424	0	5, 424
Technical	4, 227	0	4, 227
Trade and industrial	12, 981	439	13, 420
Occupational orientation	0	0	0
Total	65, 539	452	65, 991
	Fiscal year 1972 [1]		
Agriculture	20, 971	0	20, 971
Distribution	6, 220	0	6, 220
Health	2, 106	0	2, 106
Home economics, gainful	1, 330	0	1, 330
Office	7, 510	0	7, 510
Technical	8, 175	0	8, 175
Trade and industrial	19, 229	1, 942	21, 171
Occupational orientation	6, 470	642	7, 112
Total	72, 011	2, 584	74, 595
	Fiscal year 1977 [1]		
Agriculture	23, 814	0	23, 814
Distribution	16, 695	0	16, 695
Health	3, 663	0	3, 663
Home economics, gainful	2, 194	0	2, 194
Office	11, 413	0	11, 413
Technical	9, 250	0	9, 250
Trade and industrial	30, 011	2, 294	32, 305
Occupational orientation	17, 737	756	18, 493
Total	114, 777	3, 050	117, 827

[1] Disadvantaged students are excluded from this table.

f. Adults

Very few adults enrolled in the regular programs of vocational education are absolutely unemployed. Practically all of the adults enrolled in preparatory training are either underemployed or unemployed, and those enrolled in supplemental training are employed but are in training to improve their efficiency or to upgrade their employment. Most of these adults are making a sacrifice to take this training. This is true because of the fact that they are employed on a full-time job and are in training during their off hours. Below is a table showing the adults in training and their classification by preparatory and supplementary training.

Type of training	1963	1968	1972	1977
Preparatory	5, 842	6, 455	3, 102	4, 943
Supplementary	28, 687	31, 679	37, 959	56, 487
Total	34, 529	38, 134	41, 061	61, 790

In addition to enrollments of adults above the actual enrollments in Manpower for 1963, 1968, 1972, and projected for 1977, are given below.

Manpower:

1963	145
1968	3, 729
1972	2, 141
1977	6, 000

g. Financing

(i) Distribution of part B funds to local agencies under the 1968 amendments is accomplished through the application of an allocation formula that takes into consideration the four basic criteria required by the act, these being manpower needs and job opportunities, vocational education needs of people, relative ability of the local school to provide resources, and the relative cost of operating the program. Information on each of the above is reduced to quantitative data, and State averages are established. Each local school district is then compared to the State averages to arrive at a reimbursement rate for programs operated in that district.

The relative fiscal ability of each local school district is determined by utilizing an equalized assessment ratio which establishes an equalized assessed valuation of real property, which is then compared to the total number of students in the district to establish a wealth per student value. This wealth per student is then compared in the formula to the State average wealth per student.

The relative difference in cost of operation is determined by comparing the cost of operation of vocational programs in each district with the average cost of opearting programs in all local districts in the State.

The relative difference in cost of operation is determined by comparing the cost of operation of vocational programs in each district with the average cost of operating programs in all local districts in the State.

Variable matching of local funds allows the above-mentioned formula to function since each school district receives varying amounts of Federal funds from part B moneys depending on their relative position in the State as determined by the above criteria.

(ii) This section does not apply to Mississippi in that there are no cities in the State with a population in excess of 250,000.

h. Construction and Equipment

(i) *Construction*

Year	Federal	State	Local	Total
	a. Fiscal years 1963 through 1968			
1963				
1964				
1965	529, 369	....	1, 125, 703	1, 655, 072
1966	1, 337, 462	....	1, 876, 764	3, 214, 226
1967	1, 171, 637	....	1, 320, 191	2, 491, 838
1968	1, 399, 583	....	1, 872, 906	3, 272, 489
	b. Fiscal years 1969 through 1972			
1969	1, 375, 814	....	1, 538, 932	2, 914, 746
1970	1, 514, 813	....	1, 361, 272	2, 876, 085
1971	2, 120, 567	....	2, 262, 949	4, 383, 516
1972	3, 003, 645	....	3, 078, 952	6, 082, 597
	c. Fiscal Years 1973 through 1977 (projected)			
1973	1, 460, 336	....	1, 668, 195	3, 128, 531
1974	1, 500, 000	....	1, 700, 000	3, 200, 000
1975	1, 400, 000	....	1, 690, 000	3, 000, 000
1976	1, 200, 000	....	1, 400, 000	2, 600, 000
1977	1, 000, 000	....	1, 200, 000	2, 200, 000

(ii) *Equipment*

Year	Federal	State	Local	Total
	a. Fiscal years 1963 through 1968			
1963	47, 231	....	47, 232	94, 463
1964	64, 249	12, 217	52, 043	128, 509
1965	967, 857	898, 816	....	1, 866, 673
1966	894, 463	946, 076	....	1, 840, 539
1967	731, 414	808, 345	....	1, 539, 759
1968	927, 084	1, 329, 360	....	2, 256, 444
	b. Fiscal years 1969 through 1972			
1969	374, 633	664, 381	....	1, 039, 014
1970	238, 622	2, 153, 163	....	2, 391, 785
1971	33, 731	2, 445, 769	....	2, 479, 500
1972	74, 445	3, 468, 216	....	3, 542, 661
	c. Fiscal years 1973 through 1977 (projected)			
1973	283, 578	3, 178, 000	....	3, 461, 578
1974	50, 000	4, 100, 000	....	4, 150, 000
1975	70, 000	4, 300, 000	....	4, 370, 000
1976	90, 000	4, 300, 000	....	4, 390, 000
1977	100, 000	4, 300, 000	....	4, 400, 000

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

No exemplary programs and projects were started in Mississippi until fiscal year 1971 at which time an exemplary program was started in the Jones County, Miss., Schools. This program had about 8,000 students enrolled in 1971. In addition to Jones County, in fiscal year 1972 the program expanded to include Amory Separate Schools, Franklin County Public Schools, Kemper County Schools, and New

Albany Separate Schools. During 1972 there were 25,000 students enrolled. At the present time the program is operating in 10 school systems with an enrollment of 37,000. It is estimated that this program will continue to grow until there will be 118,000 students enrolled by fiscal year 1977.

In addition to the evidence of growth given above, the following accomplishments have been made:

1. Completed the development and production of two curriculum guides for grades 1 to 12.
2. Completed the production of a "Career Education Handbook for Program Implementation."
3. Completed the production of a "Career Education Workshop Manual."
4. Completed production of an illustrated guide to the career-centered curriculum.
5. Made contribution to two nationally circulated books—"Career Education Resource Guide" and "Career Education: Perspective and Promise."
6. Produced a 15-minute film on career education.

The participating schools reported the following results:

1. A closer tie between school and community.
2. Improved teamwork between vocational education and regular school programs.
3. A salvaging of many potential school dropouts.
4. A curriculum more relevant to student needs.
5. Increased enrollment in area vocational schools.
6. An improved placement of students into work settings.
7. A broader study of the world of work was begun at the elementary level.
8. Teachers became keenly aware of the world of work.

b. *Residential Vocational Education*

Every county in the State is in a junior college district, and practically all of the junior colleges have residential facilities for students who need to live on the campus. All of the junior colleges offer a comprehensive vocational education program and these programs are open to any student who wants to attend.

In addition to the junior college programs in vocational education, all available funds to construct facilities for comprehensive secondary vocational education programs have been used. These secondary vocational education facilities serve one or more schools and make training available to all students in the school who need and desire that type of education.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total [1]	Disadvantaged	Handicapped	Total [1]	Disadvantaged	Handicapped
Secondary	37,561	32,916	836	1,363	1,363	0	667	667	0
Adult	2,922	2,277	798						
Total	40,483	35,193	1,634	1,363	1,363	0	667	667	0

[1] These are duplicated in that they are shown in either secondary or adult.

In view of the above facts, no funds have been expended for residential vocational education schools. It has been and still is the opinion of the people in vocational education that the needs of the people in Mississippi can best be met by continuing to construct secondary vocational education facilities in connection with the present schools, and where needed, expand the facilities at the junior colleges.

In 1963 there was evidenced a dire need for educational programs for secondary, adults, and economically depressed persons. Some forms of instruction were therefore created to upgrade and enrich individuals in these categories. Because of the 1968 amendments, a new staff member was hired to create and direct new programs for adults in economically depressed areas. The adults were, and are, reached through community-member aides who work under the supervision of a qualified home economics teacher. This method of instruction was chosen to reach a different clientele in order to:

(*a*) improve living standards.
(*b*) strengthen family relationships.
(*c*) gain, improve, and upgrade employable skills.
(*d*) become aware of and use home and community resources.

On the secondary level effort is made to reach both the regular and the students with special needs. The consumer and homemaking programs aim to prepare its students for the multirole they assume as productive persons. Also provided are occupational home economics programs for the regular and economically disadvantaged students. There are five service areas that students may elect in order to gain salable skills. They are: Care and guidance of children; food production, management, and service; clothing production, management, and service; home furnishings, equipment, and services; institutional and home management and supporting services.

Programs for the handicapped individuals were, in actuality, nonexistent until the 1968 amendments. Working cooperatively with other service agencies, the programs have been designed to meet the needs of these persons. Initially programs were designed for the educable mentally retarded; however, at the present time individuals with other types of handicaps are being reached.

Even though good progress has been made the surface has only been scratched so far as meeting the needs are concerned. It is believed that every girl and many boys should have the advantage of a good program in home economics, but unless Mississippi gets more Federal money this program will have to be reduced.

d. Cooperative vocational education

COOPERATIVE VOCATIONAL EDUCATION ENROLLMENTS

Type of funding	1963	1968	1972	1977
Part G			1,482	2,100
Part B		1,644	992	1,960
Total	1,100	1,644	2,474	4,060

The number and scope of cooperative vocational education programs have been expanded through the use of part G funds. New cooperative programs have been established that fully utilize the State's allocation under this part of the Vocational Act of 1963 as amended.

Cooperative vocational education has been broadened to include cooperative diversified occupations (across-the-board) in addition to the specialized programs in the vocational service areas. This has allowed many small urban and rural school districts to provide a wide range of training opportunities that otherwise would not be available to the students in these districts.

This emphasis has caused many school administrators, teachers, and students to recognize the values of cooperative vocational education. More significantly, it has provided many additional students the opportunity to participate in a program designed to meet their individual needs.

e. Work-study programs

Fiscal years:	*Work-study enrollments*
1963	None
1966	1,585
1967	494
1968	389
1971	449
1972	333
1977	740

Federal funds became available for work-study in fiscal year 1966. The original allotment to Mississippi was used up and additional funds were allotted from other States that did not use their original work-study funds. By working fast, Mississippi was able to assist 1,585 students in fiscal year 1966. Other years as indicated above the maximum number of students were helped with the funds that were available. The need for work-study in Mississippi has been realized for many years, and the available funds have been appreciated and wisely used to assist the maximum number of students. Considerably more funds than have ever been available could be effectively used to help the many financially disadvantaged students in the State. It is a known fact that funds that have been expended have helped to keep students from dropping out of school.

f. Research and Training

Without reliable research it is impossible to adequately plan for the necessary adjustments in vocational and technical education programs. Part C funds have been used in Mississippi to determine information on which to build a sound program of vocational and technical education. It is felt that experimental programs that have been conducted through part C funds have made a great contribution to the improvement of all vocational education in Mississippi.

Attached to the end of this overall report is a copy of a compilation of research project abstracts covering research conducted in Mississippi during 1972. The project entitled, "Implementing a Career-Centered Curriculum in the Public Schools of Mississippi" described on pages 5 and 6 of the compilation has been particularly valuable. The project entitled, "Factors Related to the Coordination and Effectiveness of Occupational Education Programs," summarized on pages 12, 13, and 14 is also a valuable study.

STATE ADVISORY COUNCIL

(*a*) The State Advisory Council for Vocational Education in Mississippi is made up of business and professional men who represent all phases of the economy of the State. They are also located in such a manner that the entire State is represented on the council. Many contributions have been made by the advisory council for vocational education during the last 5 years. Some of these contributions are listed below.

1. Given counsel on many occasions concerning the overall good of vocational education.
2. Assisted in getting appropriations for vocational education every time the State legislature has met.
3. Has taken the leadership in making evaluations of vocational education each year.
4. Has been involved in making an industrial survey to determine the effectiveness of vocational education instruction, and has also helped to determine the needs of industry.
5. Has helped in the public relations program for vocational education, and has also contracted with the National Advisory Cou[illegible]l for the purpose of developing a public information pro[illegible].
6. Has assisted in developing, reviewing, and certifying the annual and long-range State plan for vocational education each year.
7. Has assisted the State director of vocational education in conducting a public hearing on the State plan each year.
8. Has supported the State leadership in getting Federal legislation for vocational education.

(*b*) Recommendations made by the State advisory council at the conclusion of the evaluation in 1972, along with the responses from the State board, are as follows:

1. *Recommendation.*—That immediate attention and concerted effort be given to providing occupationally related remedial instruction as needed by vocational students, and to be taught by specialists in language arts and mathematics in every vocational complex in the State (provided funds are available).

Response.—Within the limitations of the budget, and within the limitations caused by a shortage of qualified specialists in applied mathematics and language, the staff is making every effort to assure that adequate, related remedial instruction is provided to vocational students. In addition to adding instructors as the budget allows, the state staff is providing workshops to improve instruction that is now being given in this area.

2. *Recommendation.*—That every vocational complex, both secondary and postsecondary, provide a more intensified guidance involvement and services through a well planned and well organized program of personal development, human relations and worker attitudes.

Response.—The State board feels that the factors of personal development, human relations, and worker attitudes mentioned in the above recommendation are a function not only of the guidance department, but of the total program of vocational education, and that instruction in these areas must be provided through all aspects of the program. Efforts to provide adequate instruction in these areas is being made now and will be intensified in the coming year.

3. *Recommendation.*—That every effort be made to make available occupational orientation to all middle-grade students throughout the State.

Response.—Budget limitations have hampered the provision of occupational orientation for all middle-grade students in the State. Efforts during this session of the legislature, by personnel on the State staff and others to secure both enabling legislation and accompanying appropriations that would provide occupational orientation to all students in the State, failed. Further expansion of occupational orientation is being accomplished as funds become available.

4. *Recommendation.*—That a feasible study be made by the appropriate department heads to ascertain the possibility of broadening vocational offerings for girls in the areas of occupational home economics, business and office and cooperative education, as well as in any other occupational area where deemed necessary.

Response.—Concerted effort is being made to increase the vocational education offerings for girls in all areas of vocational education. This effort will be intensified during the coming year. State staff has been instructed to explore all possibilities of increasing vocational education offerings for girls to the maximum possible within our budget.

5. *Recommendation.*—That a continuous effort be maintained to increase the utilization of physical plant facilities and instructional staff in all secondary and postsecondary vocational and technical complexes where enrollments and completions are at a level of less than full capacity.

Response.—The effort to fully utilize all plant facilities and instructional staff in all programs will be continued and intensified. A definite indication of progress in this area is the increase in enrollment this year over last year.

6. *Recommendation.*—That continued effort be maintained to improve local plans with respect to organization, content and physical makeup, and also to make a concerted effort to organize a workable procedure at the local level whereby the local plans will reach the State office before the State plan is completed so that coordination between the local plans and the State plan can be done in order to make the State plan a planning document rather than a compliance document.

Response.—Efforts to improve local plans for this year have involved meetings with all concerned local school personnel conducted by selected staff members to assist the local schools in developing their plans. Deadlines for these plans to be submitted to the state office were established to assure that local plans could be used in the development of the State plan.

SUMMARY AND RECOMMENDATIONS

During the last 10 years phenomenal growth has taken place in vocational and technical education in Mississippi by use of Federal funds. Twenty-four area vocational schools have been developed in 16 junior colleges, which serve the entire State for postsecondary day students as well as adults. These schools are continually expanding their facilities to meet the occupational training needs. In addition to these, one postsecondary school is operated by the State prison board at Parchman. Thirty-four secondary area vocational schools have been built and are now in operation with 11 more under construction. The vocational schools are very popular with school boards and a great demand is placed on the State board of education to continue to expand vocational offerings in secondary programs. In order to meet the occupational training needs in Mississippi, it is estimated that about 35 more area vocational schools will need to be constructed.

Advance funding of vocational education would enable each State to do a better job of planning. If we knew at least 6 months prior to the beginning of each fiscal year, more effective use of funds could be realized.

The greatest need to improve Federal programs is to provide more funds that can be used for construction of facilities, equipping of building, and operation of programs.

The following comments are made concerning the Better Schools Act of 1973. This legislation would:

(*a*) Repeal all existing Federal vocational education legislation, as well as the ESEA Act.

(*b*) Cause concern since vocational education represents the only content area included in this bill—all other sections reflect people impact areas.

(*c*) Eliminate all funding for consumer and homemaking education.

(*d*) Place authority for fund allocation in the political arena (Governor) rather than through the duly authorized State educational agency.

(*e*) Permit 30 percent of vocational education funds to be transferred to other purposes—or with approval of a request, all funds allocated to vocational education could be transferred.

(*f*) Affect program impact by making it dependent on presidential budget and Governors' distribution of funds each year—planning for continuity will be impossible.

NOTE. No President has ever increased vocational education funds significantly, no doubt due to higher education's control of U.S.O.E.

(*g*) Cause Congress to have little interest in increasing funds above presidential budget since it will no longer have a relationship to people's needs.

(*h*) Prevent long-term State and local planning since continuity of funding is eliminated.

The administration's plan for reorganization and regionalization of the U.S. Office of Education will continue to make less effective an already weakened vocational education agency at the national level. We need strong leadership at the national level.

MISSOURI

State Director—B. W. Robinson

INTRODUCTION

The Statewide program for vocational education over the past 10 years has shown dramatic increases in the number of programs, services, and activities. Most importantly has been the increased number of Missourians who have been afforded vocational opportunities as a result of these programs. Table I summarizes vocational enrollments by level for fiscal years 1963, 1968, and 1972 and provides projections for 1977.

TABLE I.—TOTAL VOCATIONAL ENROLLMENT, BY LEVEL AND FISCAL YEAR

Level	1977 projections	1972	1968	1963
Secondary	133,507	119,669	72,975	50,674
Postsecondary	20,218	14,282	6,190	1,052
Adult	44,206	36,176	31,656	23,327
Totals	197,931	170,127	110,821	75,053

As indicated in table I, the total number of individuals served in 1963 was 75,053. The table indicates a growth pattern up to fiscal year 1972 of a 226 percent increase over fiscal year 1963. The projections for 1977 are tempered by anticipated sources of revenue and do not reflect actual numbers that could be served in the Missouri delivery system. The amount of available resources each year dictates the number of people which can be served. Our experience in Missouri is that the demand for programs, services, and activities at the local level outstrips the resources from Federal and State funds to provide partial support for these programs. While Federal funding has served as a catalyst for the growth of our State's vocational programing, very significant dollar support has come from local districts and appropriations of the Missouri General Assembly. There is no doubt that with additional funds from all levels the vocational program in Missouri will continue on this expansion trend.

a. Job Training Enrollments

This subsection will, in tabular form, present the job training enrollments for fiscal years 1963, 1968, and 1972 and will provide projections for 1977. Enrollments are categorized by high school, post high school, and adult training programs. Table II summarizes secondary level job training programs among the several areas of training for the fiscal years mentioned. It may be noted that from fiscal year 1963 to fiscal 1972 the number of people served has nearly tripled.

TABLE II.—JOB TRAINING ENROLLMENTS, SECONDARY

Area of training	1977 projections	1972	1968	1963
01. Agriculture	14,585	14,127	12,421	11,988
04. Distributive	8,418	6,867	5,353	7,650
07. Health	695	686	328	25
09. Occupational Home Economics	2,300	2,132	477	----------
14. Business	15,189	12,826	9,406	----------
16. Technical	943	655	657	369
17. Trade	19,478	14,796	7,447	3,622
Totals	61,608	52,089	36,089	23,654

Table III presents job training enrollments at the postsecondary level and indicates a program growth of 1,052 people served in fiscal year 1963 to a total of 14,090 in fiscal 1972.

TABLE III.—JOB TRAINING ENROLLMENTS, POSTSECONDARY

Area of training	1977 projections	1972	1968	1963
01. Agriculture	364	293	11	(1)
04. Distributive	1,651	1,323	253	(1)
07. Health	4,791	4,568	2,094	916
09. Occupational Home Economic	460	400	42	(1)
14. Business	2,739	2,362	1,589	(1)
16. Technical	4,845	3,335	2,201	136
17. Trade	2,386	1,809	----------	(1)
Totals	17,236	14,090	6,190	1,052

[1] None.

Table IV reveals adult job training enrollments. The Missouri adult vocational training program indicates a steady growth pattern. Since this program was well established in 1963 enrollment increases have not been as dramatic as other levels of instruction. However, enrollment has grown from over 23,000 in 1963 to over 30,000 in 1972. Two factors should facilitate growth in adult enrollment. In the past few years the department of education has developed a close relationship with the business and industrial community. Then, too, the construction of facilities in area schools and community colleges gives opportunity to offer valid adult training.

TABLE IV.—JOB TRAINING ENROLLMENTS ADULT

Area of training	1977 projections	1972	1968	1963
01. Agriculture	3,283	3,279	3,846	4,069
04. Distributive	6,437	5,292	7,319	4,988
07. Health	2,242	2,140	593	293
09. Occupational Home Economics	6,440	17	694	6,865
14. Business	6,972	5,881	3,608	----------
16. Technical	503	343	40	1,262
17. Trade	17,889	13,340	9,244	5,850
Totals	43,766	30,292	25,344	23,327

b. General Description

As can be noted, the Missouri vocational delivery system provides training opportunities in the vocational areas as follows: Agriculture, distributive education, health occupations, occupational home economics, business and office education, technical and trade occupations.

Actual enrollments may be found by reviewing tables II through IV for these service areas.

Over the past several years newer program areas have been initiated in agriculture to accommodate labor market demands. Special programs such as farm mechanics, ag mechanics, ag sales and service have emerged as some of the newer training programs. In distributive education the midmanagement program has rapidly expanded at the postsecondary level. Cooperative methodology has also experienced rapid growth in the distributive education area. Newer programs in the health field include dental hygiene, inhalation therapy, and associate degree nursing programs leading to an R.N. The occupational home economics area has experienced new program growth in programs of child care development along with increased numbers of programs for the foods service area. Data processing and administrative management programs for the business education area have grown rapidly. While cooperative methodology is now increasing rapidly in this area, large numbers of students are still enrolled in clerical and secretarial training programs. The technical occupations represent an area in which new programs such as police science, fire and safety technology, waste and waste water technology, and aviation programs have recorded significant amounts of program activity. Perhaps the greatest expansion in trade occupations has occurred with the initiation of large numbers of building and construction trades programs over the State.

c. Postsecondary Courses

Table III summarizes the postsecondary job training enrollments for fiscal years 1972, 1968, and 1963 by service area. As can be noted, the enrollment pattern represents the most rapidly expanding level of training. In 1963 there were 1,052 individuals enrolled contrasted to 14,090 enrolled in 1972. The Missouri delivery system for postsecondary vocational education includes the statewide junior college system as well as area vocational schools. Approximately 60 percent of the postsecondary enrollments are to be found in the State's community colleges. At present Missouri has one postsecondary technical institution which annually serves over 650 students.

d. Disadvantaged Students

In fiscal 1968 the statewide program for the disadvantaged was not sufficiently developed to show program enrollments. In 1970 special programs for the disadvantaged were initiated to serve the special needs of this target group. Table V summarizes the disadvantaged and handicapped enrollments, by level, for fiscal year 1972.

TABLE V.--DISADVANTAGED AND HANDICAPPED ENROLLMENTS, BY LEVEL, FISCAL 1972

Level	Disadvantaged	Handicapped	Total
Secondary	9, 941	3, 599	13, 540
Postsecondary	1, 052		1, 052
Adult	1, 490	96	1, 586
Totals	12, 483	3, 695	16, 178

Total disadvantaged enrollment for this year amounts to 12,483 individuals served. Projections for 1977 are that 18,345 individuals will be served. Disadvantaged students are enrolled in job preparatory programs and are provided ancillary or other supportive services deemed necessary for their success in the program.

e. Handicapped Students

Programs for this target group were not initiated until fiscal 1970. The vocational division annually conducts a census to identify students with handicapping conditions. For these individuals special instructional techniques, methodologies, and facilities are required. These programs have proven to be very costly. While the census figure reveals large numbers of students to be served our experience has been that increased commitment of funds will be required to significantly impact on this population target group. Table V reveals that in fiscal 1972 nearly 3,700 handicapped students over the State were served. At the same rates of expenditure we project that he fiscal year 1977 program activities will accommodate 5,434 individuals.

f. Adults

Table IV reveals the adult job training enrollments by fiscal year and areas of training. A steady growth pattern has been established for this level of instruction.

Table VI summarizes the Missouri adult vocational education programs for fiscal 1972.

TABLE VI.—ADULT VOCATIONAL EDUCATION PROGRAMS, FISCAL 1972

Vocational area	Enrollment			
	Preparatory	Supplemental	Apprenticeship	Total
01. Agriculture	1	3, 278		3, 279
04. Distributive	114	5, 178		5, 292
07. Health	681	1, 459		2, 140
09. Home economics	379	5, 522		5, 901
14. Business	2, 340	3, 541		5, 881
16. Technical	14	313	16	343
17. Trade	1, 120	7, 552	4, 668	13, 340
Totals	4, 649	26, 843	4, 684	36, 176

It may be noted that of a total of 36,176 adults served, nearly 27,000 received supplemental instruction, 4,649 adults were enrolled in preparatory programs, while 4,684 were engaged in related apprenticeship instruction. The adult enrollments attributed to Public Law 90–576 totaled 36,176 for 1 year. The State enrolls annually 2,000 students in MDTA job preparatory programs. There are slightly more than 13,000 adults enrolled annually in the adult basic education program funded from Federal sources.

g. Financing

(i) The program for distributing part B funds among local educational agencies involves three steps. (1) The disadvantaged and handicapped set-sides are calculated and subtracted from the base grant indicating the approximate amount available for distribution to regular operating programs. (2) A base grant for regular programs is calculated, i.e. secondary=$200 per teacher month employed, postsecondary=$120 per semester hour, adult=75 percent of contract salary. (3) A formula adjustment is calculated which considers the relative ability to pay and excess cost. Such items as taxable wealth, available revenue, unemployment, depressed areas, participation in other programs, maintenance, transportation, and instructor availability are considered.

By using this method, district reimbursements will vary depending on need and effort.

(ii) In most of the poor, rural areas the age of the population is 45 or over, therefore, the need for programs in relation to the number of population is reduced. Also, the local ability to generate a good educational program is generally curtailed in this type of community. The percentage of money would more closely relate to the population available for training rather than general population figures.

TABLE VIII.—SELECTED POPULATION AND FISCAL APPORTIONMENTS FOR 1971–72

	Population		Federal		State		Total	
	Total	Percent of State	Total	Percent of State	Total	Percent of State	Total	Percent of State
St. Louis area	1,825,907	39	$2,688,617	31	$1,607,647	23	$4,295,264	27
St. Louis City	622,236	13	644,485	7	392,200	6	1,036,685	7
Kansas City area	1,356,496	29	994,392	11	860,420	12	1,854,812	12
Kansas City	507,087	11	572,403	7	652,593	9	1,224,996	8
Rural areas:								
Daviess (NW)	8,420	.18	2,407	.03	10,648	.15	13,055	.08
Hickory (SW)	4,481	.10	270	.00	2,799	.04	3,069	.02
Mercer (NC)	4,910	.10	2,591	.03	2,821	.04	5,412	.03
New Madrid (SE)	23,420	.50	22,584	.25	11,933	.17	34,517	.22
Pemiscot (SE)	26,373	.56	21,316	.24	15,023	.22	36,339	.23
Ozark (SC)	6,226	.13	11,457	.13	9,516	.14	20,973	.13
Polk (NE)	15,415	.32	11,182	.13	15,531	.22	26,713	.17

h. Construction and Equipment

Missouri has experienced tremendous growth in vocational programing during the past 10 years. A most significant effort has been directed toward the development of a network of area vocational-technical schools. Each school is designed to meet the local vocational training needs of secondary students, postsecondary people, adults and people with special needs. During the 1972–73 school year, 54 of these schools were in operation. Each school provides programs for people residing within an approximate 30-mile radius. There are still several areas of the State which are not currently served by an area vocational-technical school. Hopefully this situation can be corrected during the next 10 years.

There has also been extensive growth in vocational-technical programs in comprehensive high schools and junior colleges.

Table VIII gives a summary of expenditures for construction and equipment by source of funds for the fiscal years 1963 through 1968, 1969 through 1972, and 1973 through 1977 (projected).

TABLE VIII.—EXPENDITURES BY SOURCE OF FUNDS FOR CONSTRUCTION & EQUIPMENT

	1963–68		1969–72		1973–77	
	Construction	Equipment	Construction	Equipment	Construction	Equipment
Federal	$6,754,182	$2,837,115	$10,520,548	$4,496,836	$5,027,020	$5,625,159
State	666,591	778,912	869,872	3,096,207	5,130,805	4,095,020
Local	8,966,550	3,600,844	11,459,292	6,101,969	11,350,639	7,838,510
Total	16,387,323	7,216,871	22,849,712	13,695,012	21,508,464	17,558,689

a. Exemplary programs and projects

Exemplary program activities began in Missouri with fiscal year 1071. At that time three projects were approved for a 3-year period. Each project is now in the final year of operation. A summary of the three projects follows: A 3-year career development program for students in kindergarten through grade 12 was funded at Moberly with the following program objectives: (1) to develop and maintain respect for self, others, and the world of work; (2) to expose each student to a variety of occupations during the elementary years; and (3) to develop the ability to make wise occupational decisions. Students served included 1,500 in grades kindergarten through six, 450 in junior high school, and 950 high school students. During the coming fiscal year the department will distribute curriculum materials developed from the Moberly project on a statewide basis.

An exemplary project funded at the State Fair Community College, Sedalia, to develop and field test individualized program instructional materials in office occupations has been an outstanding success. The purpose of this project was to: (1) Identify relative course content and develop behavioral objectives for all the technical and related courses in business and office education; (2) identify, select and/or develop individualized instructional materials for all the behavioral objectives and to develop a completely individualized curriculum using selective audio visual media and printed materials; and (3) field test the practicality of utilizing an individualized curriculum in business and office education in a rural area of Missouri. This project allows flexibility in entry dates for students and since students progress at their own rate they may terminate upon suitable performance. Our plan is to carry forth instructional materials from this project and initiate other projects of a similar nature over the State. This project annually serves slightly over 100 people.

A third project entitled "Industrial and Educational Cooperative Course in Circuit Electronics for the Academically, Economically, and Physically Handicapped" was approved at Doniphan, Mo. This project involved a cooperative effort between the school and local industry and sought to: (1) Develop individual skills demanded in the local industrial community; (2) work closely with local industry to achieve a smooth transition of skilled individuals from school into the labor force; and (3) assist the academically, economically and physically handicapped individuals adjust to society. Two classes of 12 students were enrolled each year for a grand total of 72 students served over the 3-year period. This project will terminate at the close of the fiscal year and will not be renewed.

Two new exemplary projects have been funded for 3-year periods beginning with fiscal 1973. The school districts of Hazelwood and Maplewood-Richmond Heights have received grant awards to conduct career education projects in grades K–12. Both school locations represent large suburban St. Louis County schools and each has an enrollment which runs into the thousands of students. Since both projects have only recently been initiated, no enrollment figures are available from these projects.

b. Residential vocational education

In Missouri we have not organized a residential vocational education school to date. Federal and State funds have been utilized in developing a valid occupational training program in the comprehensive high schools, area vocational schools, and community colleges. We simply have not had funds available to develop a residential type school. In the State plan in section 7 we note that it is not anticipated that State operated residential vocational education schools will be undertaken by the State board of education. We do, however, make provision for establishing, constructing, and operating residential schools should the State board elect to do so.

Dr. Arthur Mallory, the present commissioner of education for our State, has indicated strong interest in establishing one or more residential schools in our State. We have been in consultation with local school officials and legislative leaders relative to this concept. If sufficient Federal funds and State funds become available, we will move actively into organizing such institutions.

c. Consumer and Homemaking

The organized experiences in home economics programs, consumer homemaking, and occupational programs are especially structured to serve the handicapped and about 25 percent of all consumer homemaking students are disadvantaged. A larger percentage of those enrolled in gainful occupations might be classed as disadvantaged. At least 33 percent of all consumer homemaking enrollees come from depressed areas.

Consumer education has always been an integral part of the vocational home economics program, since the term "economics" is from this concept. In 1963, more high schools began to offer semester courses in the various subject matter areas of home economics. Consumer education and home management were included in this cycle. With the passage of the Vocational Act of 1963 the teaching of consumer education as an integral part of all consumer homemaking and a specialty in the case of semester courses became mandatory. Semesters as well as year-long family living education programs were also a requirement.

The majority of adults enrolled in city programs are taking family life courses. We believe the Kansas City family life program for adults is one of the strongest in the Nation.

The program of Future Homemakers of America has grown consistently as a part of the vocational home economics offering. Projects in leadership development have involved working with families and their children. Included have been statewide projects educating youth to the effect of drugs and birth defects. The present State project is entitled, "I'm All for Older Missourians." Approximately 17,000 youth are participating in projects to assist older people in our society.

Last year five special programs for disadvantaged adults were offered in selected areas of the State. These programs all focus on consumer education.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	25,240	36,624	628	66,524	16,500	6,500	1,440	1,000 300	100 20
Adult	6,865	6,685	[1] 321	5,180	1,300	500	[2] 17	17	5
Total	32,105	43,309	991	71,704	17,800	7,000	2,049	1,317	125

[1] PS 42.
[2] PS 592.

d. Cooperative Vocational Education

Federal support for cooperative programs in Missouri prior to 1964 was limited to about $200 per month for full-time teacher-coordinators. After the funding of the 1963 act, reimbursement of 50 percent was provided in Missouri for new programs. This policy resulted in the addition of four new high schools in 1964, four in 1965, eleven in 1966, and eight in 1967.

Funds were not adequate to continue the 50-percent reimbursement rate in 1968 and only four new programs were started. The part G funds of the 1968 act renewed the 50-percent rate and started the upward growth again with eight high schools in 1969, seven in 1970, twelve in 1971, and eight in 1972.

Table XI summarizes enrollments in cooperative vocational education for fiscal 1963, 1968, 1972, and reveals projections for 1977. Enrollments have more than tripled from 1963 through 1972 as nearly 7,000 students were enrolled in our last fiscal year's operation. As revealed in the table, the availability of part G funds has accelerated the growth of cooperative enrollments. Nearly 1,400 students were offered training in 1972 as a direct result of part G funds. Cooperative health programs will be added to the existing service areas over the next 5-year period. Total enrollments in all service areas utilizing cooperative methodology are expected to reach an all-time high of slightly less than 11,000 students.

After the first year of support from part G, a school was assured of 50-percent assistance for 3 years. This placed about 20 high schools on part G support with new ones replacing those removed each year from part G support. The demand for programs in 1973 far exceeded previous years and requires a reduction of percent of support as well as a maximum of 2 years for part G support for a high school.

TABLE XI.—ENROLLMENTS IN COOPERATIVE VOCATIONAL EDUCATION

	Number of students		
	Regular or part B	Part G	Total
Year:			
1963	2,456		2,456
1968	4,030		4,030
1972	5,576	1,399	6,975
1977 (projected)	7,327	3,636	10,963

Many of the schools starting programs with part G funds have expanded to as many as three or four full-time teacher-coordinators. Missouri now has 249 teacher-coordinators of cooperative vocational education involving agriculture, business, distributive, and industrial occupational fields. The 12 junior college districts of Missouri have all added the supervised employment experience for their distributive trainees and enrollments of students supported by part G are now found in all junior colleges with about 600 students receiving co-op experience. Half of these programs are supported by part G funds at the 50-percent rate. The balance of programs is supported from part B funds.

e. Work Study Programs

The work-study program has been very helpful to hundreds of students throughout the State of Missouri. This program has made it possible for students to stay in school and graduate from high school and not be counted among the dropouts.

The work-study program was implemented in Missouri in the school year of 1964-65. In the early years some local school officials declined to participate because they had already established programs with other agencies. These other programs offered 100-percent reimbursement. At the present time we are in need of additional funds for the work-study program. We have applications from local school districts asking for funds totaling 50 percent more than what is now available. We think there are two reasons for this growth in interest. The program has proved to be administratively sound, and it is intimately tied and related to vocational education.

In 1968 a total of 803 students were served by the work-study program, and in 1972 there were 685 students who participated. Local education agencies file a request for approval of a work-study program. When a program is approved by the State office the local agency is given a budget. Students are selected according to regulations. The State Department maintains a follow through.

If funds are available for the school year 1977, the work-study program will serve 2,500 students in the State of Missouri.

f. Research and Training

Funds made available under part C of the Vocational Amendments of 1968 have enabled us to attack some of the research and research related problems in vocational and career education.

Research projects being funded at the local level are divided into two types: Level I and level II projects.

The Level II projects differ from the level I projects in several ways. The Level II projects are of a "minigrant" type and carry a $700 maximum State reimbursement.

These projects are aimed at getting people involved in research activities who have not been previously engaged in research and have not had a lot of training. While level of sophistication in research methodology and techniques are not the main considerations for funding, this does not mean concessions are being made relative to the soundness of the idea or basic rationale for the project.

More specifically, these projects are designed to (1) attack specific problems as identified at the local level, and (2) serve as a vehicle to upgrade the research competencies of personnel in Missouri. This latter objective will be accomplished by (1) working closely with the grant recipients in formulating ideas and objectives for the projects, and (2) workshops designed to deal with specific research topics.

The level I projects require more rigorous specifications as regards the elements of research design.

Adequate information on which to base vocational program planning decisions at both the local and State level has been a major problem. We are engaged in two activities which promise to provide the kind of information needed to plan quality vocational programs.

(1) A statewide management information system to provide manpower supply and demand data is being developed. We are obligated to provide vocational training which is realistic in light of actual or anticipated opportunities for gainful employment. To date, we have primarily relied upon the Missouri Division of Employment Security to provide employment opportunities data. This does not include manpower supply, and the occupations listed are limited to employers placing job orders with the division of employment security. It is estimated that this represents approximately one-third of the employment opportunities in Missouri, and some relevant occupations are not represented in this listing.

This system is known as the Missouri Occupational Training Information System (MOTIS) and will consist of four basic components:

1. Manpower demand component (MDC).
2. Manpower supply component (MSC).
3. Student accounting component (SAC).
4. Resources inventory component (RIC).

Generally, the MDC will collect information related to employment opportunities, both current and projected; the MSC will collect information related to manpower availability; the SAC will collect information related to student enrollment, interests, and aptitudes; and the RIC will collect information regarding the physical and human resources used for the various training programs. Part C has provided partial funding for this project.

(2) The research coordinating unit has operated a computer based research and resource information system for several years, and educators in the State are able to request computer printouts of ERIC abstracts and also microfiche documents.

Following are brief summaries of research projects in Missouri:

Career development for grades K–8.—This project is designed to develop career education materials in grades K–8 which are to be used by the instructional staff to incorporate career education within the regular curriculum. Once the materials have been developed through the use of teacher committees and the coordinator of the program, a workshop will be held using consultants who are experts in this field to acquaint the instructional staff with techniques to meet career education objectives through activities developed by the various committees. The objectives are stated in behavioral terms and will be evaluated.

Industry education cooperation in providing career education.—This project is designed to develop, print, and distribute information in 24 southwest Missouri counties concerning industry's willingness to assist schools in career education. Industries were contacted which indicated their willingness to provide tours, part-time employment, lectures, or other activities which would acquaint students with their business and the occupations available in industry. The results of the survey and suggestions as to their use have been distributed to the principals of each school in the southwest districts. In addition to these materials, the coordinator of the project has volunteered to assist in pre-school workshops to acquaint staff with the utilization of this material.

Project second chance.—This project was designed to determine the adult educational needs in five counties in the mineral area districts. Information was obtained concerning the educational needs as perceived by adults, hiring practices of all employers, and job opportunities for adults which would require vocational-technical preparation.

Development of a 16mm film titled "Dynamic Careers in Agri-Business" for postsecondary agri-business graduates in Missouri.—This project provides a statewide job development and placement service for all agri-business graduates. There are seven participating institutions in this project. The results so far include an average increase of $1,000 for all graduates placed in this program as opposed to those placed by the school in which they were trained. In the last report received from this project, the coordinator has openings for 150 graduates with less than 10 graduates remaining to be placed.

A Project to determine the effect and adaptability to individualized instruction of the APEX simulation program.—This project is in the business and office area and designed to give the student experiences similar to those which they would receive in a business office. This allows the student to assimilate all their educational experiences in performing the duties of office personnel. The program is open ended which allows students to enter at any time or level and to terminate their training at a time when their skills have been developed to the point where they may secure employment reflecting their occupational objectives.

Development of sufficient skills and abilities of disadvantaged students to the level of being able to succeed in regular vocational classes.—This is a program designed for ninth and tenth graders who, in the opinion of teachers, counselors, and administrators would probably drop out of school prior to graduation. Each student in the program has classes in a 3-hour block which allows him an opportunity to have hands on experiences in many of the trade and crafts areas. In addition to the industrial education experiences, 30 minutes each day is devoted to the development of reading skills. One professionally trained counselor has been assigned a portion of his time to devote to the counseling of the students in this program.

An analysis of factors which influence student selection of vocational-technical education in southwest Missouri.—The purpose of this project is to determine the communication devices which influence student's decisions concerning careers and institutions for occupational education. In addition to the above, information is being collected concerning the characteristics of those students which enter vocational-technical programs.

STATE ADVISORY COUNCIL

In Missouri the relationship of the advisory council for vocational education and the State department of education has been a very wholesome one. The membership of the council has been very understanding of the problems and supportive of the activities of the vocational division within the department. The council has been highly independent of the department and works very closely with the program of the national council.

The most significant contributions of the Missouri Advisory Council within the past few years have been the leadership it has given to development of proprietary school laws and support for the development of the Missouri Occupational Technical Information System. Missouri is one of the few States in the Nation without any regulation of proprietary schools. Efforts in the past to enact legislation always met with defeat. The advisory council for the past 2 years has been giving strong leadership to passage of adequate legislation, and it is anticipated that this effort will be successful in this session of the general assembly. The MOTIS plan for Missouri will give us a computerized data system for planning, operating, and evaluating vocational education in Missouri.

In addition to these significant contributions among the many others, the council has worked for are the following:

1. Improving the data base for planning.
2. Creating planning instruments at the State level and at the local level.
3. Working for the improvement of the counseling and guidance function.
4. Suggesting a new formula for vocational funds.
5. Recommending the formation of a statewide labor-industry-education committee.
6. Supporting the recommendation of the vocational division for additional personnel.

The contribution that any advisory council can make is very meaningful. Of course, the composition of its membership is important to its effectiveness, but primarily it should be limited to its functions as prescribed by law, and be careful to avoid administrative functions.

SUMMARY AND RECOMMENDATIONS

The following items indicate the progress for vocational education in Missouri in the past decade:

(1) The efforts of local school administrators in maintaining, improving, and extending the offerings in vocational education have been effective. The State program is structured so that training may be organized in high schools of varying sizes although only the larger schools can provide comprehensive offerings.

(2) The cooperative manner in which administrative staffs of comprehensive high schools, area vocational schools, junior colleges, and the 4-year institutions work with the State Department of Education is exemplary.

(3) The vocational program in Missouri has a long tradition of successful operation. Its success has given stature to the program offerings.

(4) Programs are being developed in all fields to meet the needs of individuals and to meet the demands of employment opportunities.

(5) Through the use of advisory committees and other groups, the support for vocational education by professional educators and lay groups has resulted in the development of a valid program of offerings.

(6) Programs for postsecondary and adult individuals are being organized in greater numbers.

(7) More adequate physical facilities, better trained instructors, and a more vital and meaningful curriculum have contributed to the improved image of vocational education in the State.

(8) The general assembly has improved the financial support for vocational education at the local level through increased appropriations.

(9) The development of the area concept for providing vocational education has meant much to the advancement of the program.

(10) Follow-up studies reveal that trainees in vocational education are placed in employment related to the training pursued.

There are some items of concern which, if resolved, could improve our delivery system. We learn our Federal and State appropriations too late each year to be the most effective in assisting local schools with programs. It would be helpful if we knew by January 1, the appropriations for the succeeding fiscal year. The State agency for vocational education needs to be the agency in charge of directing the expenditure of all the Federal vocational funds coming into the State. Under the present situation, too many groups are operating vocational programs.

Mention was made to make a comment relative to the Better Schools Act of 1973. We know from experience that the categorical aid for vocational education is imperative if vocational education is to be served. There are too many opportunities in the Better Schools Act of 1973 to channel vocational funds to other activities.

The administration's plan for a reorganization and regionalization of the U.S. Office of Education is quite unclear. In the past several years the regional staff in the Kansas City office has been of great assistance to Missouri. We would like to see this office maintained and strengthened.

MONTANA

State Director—Benjamin Ulmer

INTRODUCTION

As is shown on the attached report, vocational education enrollments (attachment No. 1), the growth of vocational education in Montana during the past 10 years has been tremendous, especially in the area of postsecondary vocational-technical education. Very little opportunity existed in this area for the citizens of Montana until the passage of the Vocational Education Act of 1963, as amended in 1968. Another area which was greatly strengthened by the passage of this act was vocational education for the disadvantaged and handicapped. Other areas in which programs have been initiated or strengthened because of the passage of the 1963 act include cooperative education, exemplary and innovative programs, work-study programs, consumer and homemaking education and research.

Please refer to vocational education enrollments (attachment No. 1) for a list of job training enrollments for fiscal years 1963, 1968, 1972, and 1977, projected. This chart includes enrollments of persons in programs funded with Federal, State, and local funds.

PART B—STATE VOCATIONAL EDUCATION PROGRAMS

a. Job Training Enrollments

Please refer to vocational education enrollments (attachment No. 1) for a list of enrollments by job training area and by secondary, postsecondary and adult levels. This report includes all persons enrolled in courses provided with Federal funds under part B of the act, as well as the enrollments under other parts of the act.

b. General Description

Following is a very brief description, by program area, of the major achievements and progress over the past 10 years.

1. *Agricultural Education*

Agricultural education programs in Montana have been greatly strengthened by the act through the availability of funds to upgrade departments through the purchase of new equipment and instructional materials; provide inservice and preservice training for teachers of agriculture; research the feasibility of offering new courses in the area of agriculture; research areas of employability in agriculture in the State; in addition to the initiation and expansion of post-secondary agriculture programs which are reported under section C.

Among the major changes in agricultural education has been the increasing emphasis on off-farm agriculture or agriculturally related occupations and the increase in multiple-teacher departments. Some of the off-farm courses initiated over the past 10 years have included agriculture machinery sales and service; horticulture; forestry and agricultural resources.

2. *Distributive Education*

Major gains made in this area through 1963 act funds includes the upgrading of departments through the purchase of new equipment and other instructional materials. Many of the programs were expanded from 1 to 2 years in length, thus strengthening curriculum offerings. A model distributive education program was developed in Bozeman, Mont., in conjunction with the distributive education teacher education program at Montana State University. A procedural guide for distributive education teacher-coordinators was also developed and distributed throughout the State.

3. *Health Occupations Education*

The major emphasis in health occupations has taken place at the postsecondary level. However, two programs were initiated at the secondary level during fiscal year 1973, in the area of nurse aide. Adult programs have been extensively used to upgrade and retrain persons in the health field as well as provide new workers to help alleviate the shortage of trained health workers throughout the State.

4. *Wage Earning Home Economics*

A significant growth in this area is evidenced through the increase in enrollments. As shown on the attached enrollment summary—vocational education enrollments, attachment No. 1, no students were enrolled in wage earning home economics programs at the secondary level in 1963, and it is projected 1,000 students will benefit from such programs in 1977. Federal funds have greatly strengthened wage earning programs through the purchase of major instructional equipment and other instructional materials; inservice and preservice training for teachers; innovative wage earning class exploration; as well as curriculum expansion.

Some of the wage earning home economics programs initiated over the past 10 years have included care and guidance of children; food and clothing services, management and production and HERO (home economics related occupations) programs.

5. *Business Education*

Business and office education programs were not funded in the State prior to the implementation of the 1963 act. Enrollment has grown from 120 secondary students in fiscal year 1967, to a potential of 6,000 students in 1977. The growth is further evidenced at the adult level, with no students in 1963, to an anticipated enrollment of 3,800 in 1977.

Major gains have been experienced in this area through the initiation of vocational office education programs in nearly half of the high schools in the State.

In addition to the initiation and strengthening of programs through the purchase of major equipment and instructional supplies and inservice and preservice teacher education: a major gain was made through the development and publication of the business education curriculum guidelines for the State of Montana, in December 1971.

6. *Technical Education*

Enrollment in technical education courses has been increasing over the past 10 years, with an expected enrollment of 425, at the secondary level and 625, at the adult level in 1977. Many of the secondary departments have been upgraded through the purchase of instructional major equipment, minor equipment and other instructional materials.

Please note that some enrollments reported in 1968 (see attachment No. 1) for technical education were in fact trade and industrial education, thus showing an incorrect enrollment. This error in occupational coding was corrected in succeeding fiscal years.

7. *Trade and Industrial Education*

Trade and industrial education has continued to show significant enrollment gains as evidenced in the attached enrollment summary—vocational education enrollments, attachment No. 1. Many high schools initiated trade and industrial programs while other schools added new trade areas to existing programs.

Many trade and industrial education departments were significantly upgraded through the purchase of major instructional equipment and other instructional materials and inservice and preservice teacher education.

Of significant interest is the initiation of courses over the past 10 years in the areas of recreational vehicle maintenance and repair, graphic arts occupations, Indian crafts and environmental occupations.

c. *Post-Secondary Courses*

Students at the postsecondary level are served in Montana through the following public institutions: three community colleges, one public high school, one unit of the Montana University System and five State-designated postsecondary vocational-technical centers—area schools.

The five vocational-technical centers, which began operation in the fall of 1969, are located in Billings, Butte, Great Falls, Helena, and Missoula. They are funded through State funds specifically allocated by the State legislature, Federal funds, and a one-mill permissive levy imposed upon the county in which each center is located.

Of the 4,125 students taking advantage of occupational training at the postsecondary level in fiscal year 1972, 3,021 were served through the vocational-technical centers and 1,104 were students at one of the community colleges, high school or unit of the university system.

Major accomplishments made possible through the 1963 act in Montana at the postsecondary level during the past 10 years include the initiation of the following programs: Farm and ranch management, agricultural business, forestry aide, forestry technician, agrimechanic; merchandising mid-management, retail sales management; associate degree nurse, dental assistant, medical laboratory assistant, physical therapy technician, psychiatric aide; food preparation and service; business data processing occupations, stenographic, secretarial and related occupations, accounting; civil engineering, construction engineering, electro-mechanical and industrial electronics technologies; air-conditioning and refrigeration, building trades, heavy equipment operation and mechanics, airframe-powerplant maintenance technology, commercial pilot, law enforcement, radio-TV maintenance, off-highway vehicle operation and small engine repair.

In addition, postsecondary programs in the areas of auto and diesel mechanics, drafting, cosmetology, practical nurse, mid-management and welding have been vastly improved through upgrading of equipment and instructional methods and curriculums.

d. Disadvantaged Students

Enrollments for disadvantaged students are shown on the enclosed report (vocational education enrollments, attachment No. 1).

Major accomplishments in this area have included a qualified staff member in the State office to provide assistance to local school districts in providing services for disadvantaged and handicapped persons; development and publication of a guide for the development and installation of occupational training programs and services for disadvantaged and handicapped persons, which was completed in November 1971; and the inclusion of teaching methods for the disadvantaged and handicapped in all preservice teacher education.

Prior to the implementation of the 1963 act, very little assistance, financial or otherwise, was given to local school districts to help them provide occupational training for disadvantaged and handicapped persons.

Vocational education needs of disadvantaged persons are currently being met through 31 schools and institutions throughout the State. Some needs are being met through integrated programs with regular students while others are designed to meet the special needs of such persons.

e. Handicapped Students

Enrollments for handicapped students are shown on the enclosed report (vocational education enrollments, attachment No. 1).

Major accomplishments for handicapped persons are substantially the same as reported for disadvantaged students. Please refer to section D of this report for further information.

The training of handicapped persons is primarily being done through high schools at the secondary and adult levels. A small number were also trained through the post-secondary vocational-technical centers.

f. Adults

The breakdown of enrollment in adult education by the various service areas is shown in the attached report (Vocational Education Enrollments, Attachment No. 1).

Of the 8,727 adult students in fiscal year 1972, 7,572 of these received supplemental instruction; 561 received related apprenticeship instruction; and 594 were enrolled in preparatory training programs.

All except 564 of the adult students in fiscal year 1972 were funded through part B funds.

For a comparison of the enrollment of students under part B funds with those funded under Federal manpower funds, please refer to the chart, Manpower Enrollments. Approximately 80 percent of the manpower students meet the criteria for disadvantaged persons. All of the manpower training is at the adult level.

MANPOWER ENROLLMENTS[1]

Service area	Fiscal year—			
	1963	1968	1972	1977 projected
Agriculture education	22	27	0	50
Distributive education	0	0	0	75
Health occupations education	40	30	30	60
Wage earning home economics	27	65	35	100
Business education	35	25	40	100
Technical education	0	0	0	0
Trade and industrial education	116	140	110	300
Basic education (prevocational)	0	110	200	100
Not elsewhere classified	0	23	102	215
Total	240	420	517	1,000

[1] Enrollments listed are adult level.

g. Financing

1. A detailed description of the reimbursement method for part B funds is contained in part I, sections 3.24 through 3.27 of the Montana State Plan for the Administration of Vocational Education.

3.24 *Maintenance of Effort.* Federal funds allocated through Part B of the act will not supplant state or local funds. They will be used to supplement and, where possible, increase the amount of state and local funds that would—in the absence of such federal funds—be made available for the purposes set forth in Section 122(a) of the act. The intent of this policy is to insure that all persons in all communities of the state will have ready access, as soon as possible and practical, to vocational education programs suited to their needs, interests and abilities to benefit therefrom.

No payments of federal funds will be made to a local educational agency which has not maintained its fiscal effort by providing local funds in amounts no less than those expended for similar purposes during the previous fiscal year. The local educational agency must make provision for a 5 percent difference in expenditures per student from one year to the next. Exceptions to this policy may be made in unusual circumstances, particularly those in which the applicant can demonstrate the existence of conditions which could not be anticipated or those in which the applicant can demonstrate undue hardship as a result of limited local tax resources.

3.25 *Matching.*

3.25-1 Overall State Matching: The State Board will allocate federal funds within the percentage requirements of the act for disadvantaged persons, handicapped persons, most-secondary vocational education and consumer and homemaking education. These funds will be allocated within the statewide matching requirements of at least one dollar of state and/or local funds for each dollar of federal funds expended under the State Plan for vocational education programs, services and activities under Part B of the act. The matching requirements will not be administered in a manner which requires local educational agencies to match federal funds at a percentage ratio uniform throughout the state.

3.25-2 Reasonable Tax Effort: The State Board will use the procedure outlined in 3.26-3 of this State Plan for determining the tax effort of a local educational agency. The tax effort of a local educational agency will be considered reasonable when it is equal to or greater than the state average tax effort. The data upon which the formula for computing the local tax effort is based will be updated annually. These data will be taken from the Annual Report of School Trustees submitted by each local educational agency to the Superintendent of Public Instruction.

No local educational agency using its taxing authority to make a tax effort equal to or exceeding the state average tax effort will be denied funds for the establishment of new vocational education programs solely because it is unable to pay the non-federal share of the cost of such programs. This provision does not apply to state-designated post-secondary vocational-technical education centers for vocational education nor to other state instituions funded through direct appropriations of the state legislature but does apply to local school systems which are funded by appropriations from the general tax revenues of a political subdivision such as a city or county as well as local school systems having taxing authority exclusively for public school purposes.

3.26 *Criteria for Determining Relative Priority of Local Applications.*

A. The State Board will consider local applications for federal funds appropriated and granted to the State of Montana to be used for vocational education programs, services and activities for the following persons.

1. Persons in high school.
2. Persons who have left or completed high school and who are available for study in preparation for entering the labor market.
3. Persons who already have entered the labor market and who need training or retraining to achieve job stability or advancement in employment.
4. Disadvantaged persons.
5. Handicapped persons.
6. Persons in business and industry.

B. The local educational agency will prepare and present to the State Board, through the Superintendent of Public Instruction, a plan for vocational education. The plan will show the annual needs and an annually renewable five-year projection. The plan will include the following.

1. Vocational education programs, services and activities to meet the identified needs.
2. Objectives of programs and provisions for evaluation.
3. Estimated cost of programs, services and activities.
4. Population groups to be served in the geographic service area.
5. Manpower needs and job opportunities.
6. Evidence of consultation with advisory committees, local business committees and others, such as the Montana Manpower Planning Advisory Council.
7. Statements of unusual circumstances or situations affecting the local plan for proposed programs, services and activities.

C. The State Board will consider the plans and programs of local educational agencies as submitted and recommended by the Superintendent of Public Instruction and will assign them priority for allocation of funds in relationship to the following general considerations.

1. Manpower needs and job opportunities.
2. Differences in vocational education needs.
3. Relative ability to pay.
4. Relative or excessive costs of programs, services and activities.
5. Results of periodic evaluations of state and local vocational education programs, services and activities.
6. The relative educational needs of all population groups in the state, with particular reference to the needs of persons with academic, socioeconomic, mental or physical handicaps which prevent them from succeeding in regular vocational education programs without additional assistance.
7. The economic capability of the community as evidenced by, but not limited to, such factors as depressed area designation and high rate of unemployment.
8. Special factors occasioned by geographical isolation and/or population sparsity.

3.26-1 Manpower Needs and Job Opportunities: The State Board will analyze labor market data from sources such as the Montana Employment Security Commission, private employment agencies, local agencies, state agencies, national agencies, employers, employees, professional organizations, employer organizations and the Montana Manpower Planning Advisory Council in identifying current and projected manpower needs and job opportunities. The data will be used to determine the relative priorities of each of the Part B program purposes, as well as to determine the relative priority of applications for programs submitted by local educational agencies.

Consideration of the information obtained through the previously defined cooperative arrangements and through periodic evaluations will be reflected in the annual and long-range plans. Data contained in the annual project applications and follow-up studies will be considered in determining manpower needs and job opportunities.

3.26-2 Vocational Education Needs:

A. In allocating funds to local educational agencies, the State Board will consider the relative vocational education needs of all population groups pursuant to 3.1 of this State Plan, to all geographical areas and communities in the state and particularly to disadvantaged and handicapped persons.

B. In assessing the relative vocational education needs of the state and the various population groups, the State Board will give particular consideration to applications from those local educational agencies that will have to assume the additional financial burden of providing disadvantaged and handicapped students with special services, such as compensatory and bilingual courses.

C. In identifying the vocational education needs, first priority will be given to programs for the disadvantaged and the handicapped. The State Board will consider the following factors.

1. The number of disadvantaged persons in the area.
2. The number of handicapped persons in the area.
3. The availability of economic, educational and social service resources in the area.

Data gathered by the State Board and additional data gathered from such agencies as the Montana Employment Security Commission will be reviewed to determine these three factors.

3.26-3 Relative Ability to Provide Resources: Schools providing vocational education in the State of Montana receive financial support at the state and local levels through enactment of specific legislation which provides for sources of such funding for post-secondary vocational-technical education centers, community colleges, the Montana University System and the secondary school system.

A. In allocating funds among local educational agencies which are supported in whole or in part by local tax revenues, the State Board will give due consideration to their relative abilities to provide resources necessary to meet the vocational education needs in the areas or communities served by these agencies.

B. The State Board will use the adjusted effort factor method in computing the local educational agency's relative ability to pay its share for support of vocational education.

C. The State Board will use the adjusted effort factor method of computation in determining the local educational agency's relative ability to pay. The adjusted effort factor will be determined by utilizing the following formula.

Relative ability to pay factor: Determined for two groups (depressed and non-depressed) of the school distret.

$$\text{Ability to pay} = \frac{\text{School district taxable valuation per ANB [1]}}{\text{State average taxable valuation per ANB [1]}}$$

A factor of one (1) or more indicates an ability to pay equal to or greater than the average.

Unadjusted effort to pay factor:

$$\text{Unadjusted effort to pay factor} = \frac{\text{District revenue from local sources per ANB [1]}}{\text{Average revenue from local sources per ANB [1]}}$$

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[1] ANB means the average number of pupils belonging to a school, computed on the basis of Montana's school membership formula.

A factor of one (1) or more indicates an effort to pay equal to or greater than the average.

Unadjusted effort factor: This factor is the ratio of the "unadjusted effort to pay factor" to the "relative ability to pay factor" and indicates whether the district's effort to pay is greater or less than the ability to pay as compared to the average of all school districts in the state.

$$\text{Adjusted effort factor} = \frac{\text{Unadjusted effort to pay factor}}{\text{Relative ability to pay factor}}$$

A factor of one (1) or more indicates an adjusted effort equal to or greater than the average.

D. State financed institutions, boards of cooperative services, community colleges and state-designated post-secondary vocational-technical education centers will be considered to have the same relative ability to pay as the state average.

E. The data used in the formula for the adjusted effort factor will be updated annually and will be taken from the Annual Report of County Superintendents submitted for each school district to the Superintendent of Public Instruction.

F. If the State Board determines, on the basis of reliable sources of information and documentation, that conditions exist which require special consideration, it may reimburse programs at a rate which it deems such special conditions warrant.

Relative Costs of Programs, Services and Activities:

A. In allocating funds to local educational agencies, the State Board will give due consideration to the cost of the programs, services and activities which is in excess of that normally attributable to the cost of education provided by local educational agencies.

B. The local educational agency will submit information showing any excess costs for program operation. These costs will be compared to the statewide average for program operation. Information relative to the statewide costs of operation may be found in the Office of the Superintendent of Public Instruction.

C. Those school districts with relative costs in excess of the statewide average may be reimbursed at a greater rate, depending upon the degree of excess costs. The State Board will consider each case on its own merit.

Other Criteria of the State: Since the population of the state is distributed throughout a large geographic area, special consideration will be given to outlying districts removed from major population centers to assure that equality of vocational education opportunity through quality vocational education programs exists for persons living in remote and sparsely populated areas.

Prevocational and job orientation courses will be developed in small secondary schools. These courses may lead to transfer to post-secondary institutions or may lead to entry employment, depending upon the orientation of the instruction provided.

The State Board will give special consideration to the Indian population and other minority groups of Montana to assure equality of vocational education opportunities. The Bureau of Indian Affairs will be consulted, as will tribal councils and other appropriate agencies and groups concerned.

Migrant workers and their families will be identified and vocational education programs will be developed to meet their needs.

3.27 Application of Criteria in Determining the Relative Priority of Local Applications. From the federal funds allotted to it under Part B of the act, the State Board will allocate funds to local educational agencies in a manner which will fulfill the statewide matching requirements, support the maintenance of vocational education efforts, assure reasonable tax effort requirements and meet the requirements outlined in 3.24, 3.25 and 3.26 of this part.

A. The State Board, in determining priorities for local project application approval, will use the State Scale of Weights Criteria, taking into consideration such factors as manpower and employment needs, vocational education needs of the population, relative ability to pay, excess costs, economically depressed areas, dropout and youth unemployment areas and demonstration and pilot projects. The percentage amount of the federal share of the total costs of local programs, services and activities will be allocated on a statewide basis according to the requirements of the act and the budget requirements as shown in Part II of the State Plan.

B. The State Board will use a weighted criteria system for determining allocation of vocational education funds to local educational agencies. A scale will be used to establish priority rank among the various school or agency vocational education program applications. The scale which will be used is divided into four categories with assigned values of from 1 through 5 and a fifth category of 20 points. The major factor considerations for rating are as follows. (See page 67 of this part of the State Plan.)

1. Manpower Needs: Weight—4; possible points—20. The local educational agencies are ranked on the basis of manpower needs within the local, state or regional areas which are to be served. Statistics available from the Montana Employment Security Commission, or local offices thereof, will be used to rank local educational agencies. The two factors to be considered are the annual average number of unfilled jobs in the region in which the local educational agency is located and the annual average percentage of unemployment in each region of the state. The number of unfilled jobs for the state will be established from the employment security records. Each region will be ranked on the 1-5 scale.

The following scale will be used to determine the point value of this factor for each school.

	Points
13 percent or more of the unfilled jobs	5
10-12 percent of the unfilled jobs	4
7-9 percent of the unfilled jobs	3
4-6 percent of the unfilled jobs	2
1-3 percent of the unfilled jobs	1

The second factor to be considered will be the percentage of unemployment for each region. The percentage of unemployment in each region will be compared to the total state unemployment.

The following scale will be used to determine the point value of the unemployment factor for each school.

	Points
21 percent or more of state unemployment	5
16-20 percent of state unemployment	4
11-15 percent of state unemployment	3
6-10 percent of state unemployment	2
1-5 percent of state unemployment	1

The total points for the two factors, unfilled jobs and unemployment, will be averaged and will become the total for this category.

2. Vocational Education Needs. Weight—7, possible points—35. Data which will be considered to obtain a scale to determine the vocational education needs of the local educational agency will include the percentage of dropouts in the district compared to the state average of reported dropouts and the number of high school graduates who pursue a baccalaureate degree. A local educational agency with a high dropout rate will be given a higher rate factor. A school with a low dropout rate will be awarded a lesser factor. The dropout rate will be determined from information obtained from the Annual Report required of all school districts by the Superintendent of Public Instruction.

The following scale will be used to determine the point value of this factor for each school.

	Points
9 percent over dropout rate	5
7-8 percent dropout rate	4
5-6 percent dropout rate	3
3-4 percent dropout rate	2
1-2 percent dropout rate	1

The second factor to be considered under this category is the number of students entering baccalaureate degree schools.

The following scale will be used to determine the point value of this factor for each school.

	Points
1–10 percent of the graduating class	5
11–25 percent of the graduating class	4
26–40 percent of the graduating class	3
41–50 percent of the graduating class	2
51 percent and over of the graduating class	1

The total points for the two factors, dropout rate and number of students entering baccalaureate degree schools, will be averaged and will become the total for this category.

Relative Ability to Pay. Weight—4, possible points—20. The adjusted effort factor method of computation will be used in determining a school district's relative ability to pay. (See page 56 of this part) Districts having the least ability to pay will be given the highest rate. The state average adjusted effort factor is established—a figure less than one will indicate the local educational agency has made a less than average effort. A figure greater than one will indicate an effort greater than the state average.

The following scale will be used to determine the point value of this factor for each school.

	Points
1.50 and above effort	5
1.11–1.49 effort	4
.09–1.10 effort	3
.50–.89 effort	2
.01–.49 effort	1

4. Excess Cost. Weight—1, possible points—5. Local educational agencies that have evidence of costs which are high compared with other projects or programs within the educational system will be ranked higher on the rating scale. The excess cost factor in Montana is insignificant except in the case of salary differences in different educational agencies. Therefore, a weight of one has been assigned to this category and only salaries are used as a determining factor. The average annual teacher salary for the state, based on a nine-month year, is $8,725. This salary has been assigned a rate factor value of 1.

The following scale will be used to determine the point value of this factor for each school.

	Points
$1500 and above state average	5
$1000–$1499 above state average	4
$999 above to $999 below state average	3
$1000–$1499 below state average	2
$1500 and below state average	1

5. Economically Depressed Areas and Demonstration or Pilot Projects. An additional 20 points will be added to a local educational agency's total points if it qualifies for either or both of these categories. A local educational agency may not receive more than 20 points under this category.

> (*a*) Economically Depressed Areas. To assure that local educational agencies will not be denied opportunities to participate in vocational education programs due to inability to provide local matching funds, additional consideration will be given to those agencies which are in areas considered to be economically depressed under the provisions of this plan.
>
> (*b*) Demonstration or Pilot Projects. Local educational agencies that submit projects which have special features considered to be demonstration or pilot in nature and which help to meet special needs of the overall state program may qualify under this category. A project will be considered demonstration or pilot if (1) it is a new approach in vocational education and indicates a potential to make a significant contribution to vocational education in Montana as determined by the Superintendent of Public Instruction, or (2) the Superintendent of Public Instruction officially requests the local educational agency to conduct the project.

The staff of the Vocational and Occupational Skills component will review each local application in terms of the rank it has on the state scales. The maximum possible point total will appear as follows.

	Weight		Maximum rate		Total points
a. Manpower needs	4	×	5	=	20
b. Vocational education needs	7	×	5	=	35
c. Relative ability to pay	4	×	5	=	20
d. Excess costs	1	×	5	=	5
e. Economically depressed areas and/or demonstration or pilot projects					20
Total possible points					100

Each local educational agency will be ranked according to the above process and those with a point total near 100 will be given priority for highest funding. Those local educational agencies having a low point total will receive a lower priority of funding. Assigned funding percentages will be according to the following scale.

	High										Low
(1)	100	90	80	70	60	50	40	30	20	10	0
(2)		50	45	40	35	30	25	20	15	10	0

(1) Point rating assigned.
(2) Percentage of funding.

Example: A local educational agency with a project assigned point rating of 80, according to the weighted criteria system above, would receive 45 percent funding. Local applications which have an assigned point rating which falls between the percentage considerations as given on the above scale will receive percentage funding as applicable to the nearest point rating on the scale. Thus, a district receiving an assigned point rating of 55 would receive funding on a 35 percent basis. Local educational agencies having a point rating of 4 or below will receive no reimbursement. All point ratings above 85 will receive 50 percent funding. All percentage ratings for funding are applicable only to the degree that federal funds will be made available to the state. If adequate funds are not available for support at the above rate, all rates of support will be proportionately reduced for all categories. Ninety percent of the total funds available under Part B, except for construction and ancillary services, will be utilized to support the vocational education programs under this section. The remaining 10 percent will be held in reserve to provide for contingency items which may arise at a later date. If unused, the remaining 10 percent will be added to the total support allotment in accordance with the above formula.

C. In determining the relative priority for each application submitted by a local educational agency, a "scale of weights" will be assigned to each application. The weighting will be determined by criteria outlined in the following instrument.

STATE SCALE OF WEIGHTS CRITERIA FOR DETERMINING ALLOCATION OF VOCATIONAL EDUCATION FUNDS TO LOCAL EDUCATIONAL AGENCIES

School or Agency ....
Name of Project ....
Priority Rating ....

	Weight applied by State	Points applied High 5 4 3 2 1	Points applied Low	Total points	Possible points
Major factor considerations					
Manpower needs and job opportunities	4				20
Vocational education needs of population	7				35
Relative ability to pay	4				20
Excess costs	1				5
Additional considerations					
Economically depressed areas and/or demonstration or pilot projects					20
Total					100

To illustrate actual changes in the funding procedures over past years, the following examples are presented indicating the percent of support under the procedures used for FY 1971 and the percent of support to be applied to each school under the procedures established and explained in 3.27, Part I, of this plan.

School A: FY 1971 support was 49.6% of the project budget. FY 1972 project budget support will be 35% under the new allocation procedure as this school earned a total of 60 points on the rating scale in 3.27 of this part of the plan.

School B: 1971 support was 49.6% of the project budget. FY 1972 project budget support will be 45% under the new allocation procedure as this school earned a total of 80 points on the rating scale in 3.27 of this part of the plan.

D. All local applications will be submitted to the Superintendent of Public Instruction whose staff will review each application and will give each application a priority rating according to the scale of weights criteria outlined above. These recommended ratings will be submitted to the State Board for action.

E. The data to be used for establishing the criteria for determining priorities will be updated annually and will be taken from annual applications made by local educational agencies concerning the relative ability to pay formula pursuant to 3.26–3 of this State Plan, surveys made by local and state agencies regarding manpower needs and job opportunities, surveys of vocational education needs for the total population, reports of excessive costs factors, annual reports of local school districts, and other financial data compiled by the Office of the Superintendent of Public Instruction.

F. When the State Board determines that conditions exist which require special consideration, it may reimburse or fund a project at a rate which it deems the conditions to warrant.

4.0 *Vocational Education Programs for the Disadvantaged.*

A. Funds appropriated under Section 102(b) of the act will be used *only* for vocational education programs for persons who have academic, socioeconomic or other handicaps that prevent them from succeeding in the regular vocational education program.

B. In addition to the provisions in 1.0 through 3.0 of this part of the State Plan, the following special provisions apply to programs for the disadvantaged supported with federal funds under Section 102(b) of the act.

4.1 *Required Allocation of Funds to Certain Areas.* Allotments appropriated under Section 102(b) of the act will be allocated within the state to educational agencies offering vocational education programs for disadvantaged persons located in areas with a high concentration of youth unemployment and school dropouts, pursuant to 1.10D of Part I and Part II of the State Plan.

4.11 *Regular Vocational Programs.* Funds allocated may be used to pay that part of the cost of such supplementary special educational services to regular vocational education programs that enable the disadvantaged to benefit from a regular vocational education program.

4.12 *Special Vocational Education Programs.* Funds allocated may be used to pay that part of the total cost

2. This section of the report is not applicable in that we do not have any cities with a population of 250,000 or more.

h. Construction and Equipment

Montana Vocational-Technical Center Construction and Equipment Expenditures will provide you with financial information as requested in this section.

Montana has five vocational-technical centers (area vocational schools), as noted previously, of which two were constructed partially with 1963 act funds, one was constructed partially with other Federal funds, and two schools are in the planning stage. One of these two schools, Great Falls Vocational-Technical Center, will begin construction on their new facility in fiscal year 1974, using state and local funds.

CONSTRUCTION AND EQUIPMENT

Fiscal year and Vo-Tech center	Total	Local	VEA	State
1966—Helena:				
Construction	$743,906	$371,953	$371,953	0
Equipment	11,094	5,547	5,547	0
Total	755,000	377,500	377,500	0
1967—Helena:				
Construction	247,428	123,714	123,714	0
Equipment	180,266	90,133	90,133	0
Total	427,694	213,847	213,847	0
1968—				
Helena:				
Construction	26,930	14,796	11,216	$918
Equipment	68,529	34,265	27,182	7,082
Total	95,459	49,061	38,398	8,000
Missoula:				
Construction	518,391	259,195	248,841	10,355
Equipment	1,609	805	804	0
Total	520,000	260,000	249,645	10,355
Butte: Equipment total	93,223	46,612	46,611	0
1969—Missoula: Equipment total	482,000	203,500	241,000	37,500
1970—None				
1971—None				
1972—Missoula: Construction total	200,000	0	0	200,000
Grand total	2,573,376	1,150,520	1,167,001	255,855

PROJECTION

1973—Great Falls—Initial construction. Helena—Remodeling. Butte and Billings—Planning and land acquisition.
1974—Continuation of fiscal year 1973 projects.
1975—Butte and Billings—Initial construction.
1976—Continuation of fiscal year 1975 projects.
1977—All centers—undetermined remodeling.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

As shown on the Vocational Education Enrollment chart (attachment No. 1) the number of persons served under exemplary programs has increased from none in 1968 to a projection of 860 in 1977.

SUMMARY OF EXEMPLARY PROGRAMS

FY 1963

No funded exemplary programs.

FY 1968

No funded exemplary programs.

FY 1972

Hardin Public Schools, Hardin

Title.—Prevocational industrial arts education at the junior high level.

Number served.—46 elementary students.

Progress.—The project provided for the development and use of programmed materials for industrial arts; development and utilization of flexible entry-exit concept; development and use of instructional materials which are culturally relevant to the disadvantaged student; integration of basic skills materials, where needed, into the industrial arts program; and the use of an information gathering instrument to enable the teacher to know more about the student and the student to learn more about himself.

Columbia Falls High School, Columbia Falls

Title.—Secondary exemplary program in business and office education.

Number served.—22 secondary students.

Progress.—The project provided students with vocational preparation in the field of data processing; a basic understanding of computer programming; a basic understanding of the three methods of data processing—manual, mechanical and electronic; and an understanding and appreciation of the importance of information handling. Each student was able to write a complete, workable program for the computer, including flowcharting, debugging and interpretation of output.

Havre High School, Havre

Title.—Secondary exemplary program in office education.

Number served.—554 secondary students.

Progress.—The project provided students with the practical experience and skills to enter and succeed in the world of work in clerical and secretarial occupations. It also provided them with a good prerequisite for post-secondary specialization or teacher preparation. The program was guided by the career objectives of the students who were enrolled.

Twin Bridges High School, Twin Bridges

Title.—Secondary exemplary program in home economics, office, welding, carpentry and drafting.

Number served.—170 secondary students.

Progress.—The project was designed to provide a vocational program that takes into account the special needs of disadvantaged students. Because the Montana Children's Home is located in Twin Bridges, a large percentage of the students are children without a normal home life. Through counseling and instructional presentations students were helped to overcome poor work habits, made aware of the nearly limitless occupational fields; provided orientation in several job clusters and helped to develop minimal skills. The students are more employable because of improved work attitudes and habits, a knowledge of basic tools and equipment, elementary vocational skills, and the knowledge of how to proceed to acquire a job.

Park High School, Livingston

Title.—Planning project in vocational education for K–12.

Number served.—No direct student involvement, this was a planning project.

Progress.—A survey of the present curricular offerings from K–12 was undertaken to ascertain what vocational training and career information was available in the Livingston schools. Through this project a plan was developed to provide vocational orientation, job-entry level skills and preparation for training beyond the secondary level.

Shepherd High School, Shepherd

Title.—Exemplary program in trades and industry, consumer and homemaking and home economics occupational preparation.

Number served.—49 secondary students, 60 elementary students.

Progress.—This program was designed for several years duration, each year focusing on in-depth preparation in one of the vocational areas. In 1972 the area of focus was consumer-homemaking and consumer economics. The program assessed each student's interests, values and needs through testing and interviews; provided each student with information regarding occupational opportunities in the home economics and related areas; provided activities to interest students in continuing their education with emphasis on reducing the school dropout rate and provided an introduction to the world of work with laboratory experience. The students completing the course have a foundation of a combination of vocational orientation, guidance and salable skills which make them more employable.

Huntley Project Public Schools, Worden

Title.—Agricultural, consumer-homemaking, office, wage earning home economics and distributive education exemplary program.

Number served.—213 secondary and 119 elementary students.

Progress.—Elementary students were provided with occupational and career education information and prevocational exploration. Secondary students were provided with cooperative education opportunities, job placement, special assistance if they were disadvantaged or handicapped and guidance. Completing students were more employable because of the training made available, guidance, career exploration and individual assistance received.

Montana State University, Bozeman

Title.—Exemplary program in home economics teaching training and supervising student teachers.

Number served.—42 student teachers and 47 supervising teachers.

Progress.—A one-day workshop was held in various locations to assist supervising teachers in preparation for supervising student teachers. Telephone conference calls were also used to contact supervising teachers in assisting them with problems they encountered, variations of teaching methods and other topics of importance. The two non-visitation methods strengthened the student teaching program by allowing for more direct supervision.

In addition to these projects funded under part D, exemplary (State), Helena School District No. 1, Helena, Mont., was awarded a grant by the U.S. Department of Health, Education, and Welfare to conduct a career education project titled "The Next Step—A Comprehensive Program in Occupational Preparation and Placement." This project commenced on November 1, 1970 and will terminate October 31, 1973. It has provided a wealth of information on career education, grades K–14 for the public schools of Montana, as well as the Nation.

It would be difficult to briefly document the immense harvest that vocational education has reaped through exemplary programs—the new teaching techniques, curriculum guides, occupational exploration, career education are only a few of the positive results of the program.

b. Residential Vocational Education

Because this part of the act has not been funded Montana has not designated any such residential schools. However, due to the State's sparse population and large geographic area, potential does exist for residential facilities at each of the State's five vocational-technical centers.

c. Consumer-Homemaking and Occupational Home Economics

Level	Fiscal year 1963, vocational home economics	Fiscal year 1968		Fiscal year 1972					
				Part F—Consumer-homemaking			Part B—Occupational home economics		
		Home economics useful (homemaking)	Home economics gainful (employment)	Total	Disadvantaged[1]	Handicapped[1]	Total	Disadvantaged[1]	Handicapped[1]
Secondary	3,687	4,516	63	6,362	998	219	125	43	12
Adult	431	1,201	42	465	0	0	43	0	0
Total	4,118	5,717	105	6,926	998	219	168	43	12

[1] Enrollments in these categories are estimated.

There has been a steady increase in enrollments in consumer-homemaking and occupational home economics education programs in Montana schools the past 10 years. More students are enrolling because of the kinds of consumer-homemaking and occupational home economics education programs being offered. Schools are now offering co-ed classes or special classes for boys. The number of boys enrolled in consumer education and family living classes and occupational home economics classes has more than tripled in the last 3 years. Semester classes are also very popular and offer the students more choice in an interest area.

In the summers of 1970 and 1971 special workshops were held for home economics teachers teaching on the seven Indian reservations in Montana. The purpose of this special training was to help teachers plan home economics programs that would better meet the needs of Indian students, both boys and girls. Parents are involved in these programs through local advisory councils.

A continuing program of inservice training for teachers and up-to-date curriculum materials help to stimulate local program planning to meet student needs.

d. Cooperative Vocational Education Enrollment.

The enrollments shown on attachment No. 1, Vocational Education Enrollments, include only students under part G of the act and only reflect a portion of the total cooperative effort. Cooperative programs are currently being conducted in all vocational subject matter areas at the secondary and post-secondary levels by qualified coordinators.

A guide for cooperative programs was developed and disseminated throughout the State. In addition, summer inservice workshops were conducted for over 350 vocational teachers who were interested in developing cooperative programs.

e. Work-Study Programs

The number of students served in work-study programs is shown on the enrollment chart, attachment No. 1. As you will note, no students participated in a funded work-study program during fiscal year 1963.

In fiscal year 1968, 64 students participated at the secondary level while 7 students participated at the post-secondary level. Eight high schools and 1 college out of a possible 78 schools participated in the program. Because of the low level of funding, expansion has been difficult.

Work-study funds have made it possible for many disadvantaged students to remain in school over the past 6 fiscal years who would have otherwise had to drop out.

f. Research and Training

An "information System for Decisionmaking" model was developed to assist school administrators better plan vocational education programs. This model was disseminated through a series of workshops for local school administrators on how to utilize the system in making administrative decisions.

A project was also conducted with the agricultural education staff at Montana State University to study agribusiness. The results of this study are being used to upgrade existing agricultural curriculums in order that they may better meet industrial demands.

In addition to the research above, Montana received a grant from the Department of Health, Education, and Welfare, through Great Falls School District No. 1 for a "Research and Development Project in Career Education." This grant, in the amount of $36,439 was made through title 1, part C, section 131(a) of the 1963 Act, as amended and will be effective from February 7, 1972 through August

6, 1973. Six school districts cooperated with the Great Falls school district in establishing programs founded on research of manpower and student needs in Montana, mostly in agricultural related areas: providing students with accurate information regarding these needs and providing training and placement to fill the needs.

STATE ADVISORY COUNCIL

Following are recommendations made by the State Advisory Council in their second annual report on September 13, 1971 with responses to their recommendations. Also listed are the recommendations made by the council in their third annual report (December 1972) with appropriate responses.

The Montana Advisory Council for vocational education has cooperated extensively with the State superintendent's office in the evaluation of secondary, post-secondary and adult vocational education programs. In addition, they have worked with the State Legislature in order to get increased state appropriations for vocational education program. They worked cooperatively with the State superintendent's office in the development of a vocational public information project which produced radio and television commercials and brochures explaining vocational education offerings in Montana. The radio/TV commercials were distributed to stations throughout the State with the result being increased interest in vocational education by Montana citizens and better informed students as to what vocational programs are available.

STATE ADVISORY COUNCIL RECOMMENDATIONS AND FINDINGS

RECOMMENDATION I—DATA FOR PROGRAM PLANNING

The Council recognizes the need for additional and valid planning for vocational education programs. The council recommends the following.

A. Greater emphasis should be placed on securing more valid data on dropouts.

B. The Office of the Superintendent of Public Instruction should give first priority to making the entry/exit/follow-up system fully operational.

C. Job market information must be collected on a national, regional, state and local basis. The cooperation of all agencies having such information is needed.

The Superintendent of Public Instruction has hired a full-time person to coordinate all data gathering activities for vocational education. This individual, who has been assigned to the Vocational and Occupational Skills component, has the responsibility of thoroughly reviewing and analyzing the vocational education entry/exit/follow-up system as it presently exists, modifying the present entry system and exit portion of the system and implementing the follow-up portion so vocational education student follow-up information on vocational education students graduating in 1972 will be gathered, validated and disseminated to school districts, other state agencies and the Montana Advisory Council.

This person also has the responsibility of coordinating data gathering activities with other state agencies that collect manpower data, such as the Employment Security Commission, Department of Social and Rehabilitation Services, Deparment of Planning and Economic Development and Montana Manpower Planning Advisory Council. By interpreting data collected by these agencies, it is anticipated that the state will obtain a truer picture of the job market at the local, state and national levels.

RECOMMENDATION II—FINANCIAL SUPPORT OF VOCATIONAL EDUCATION

The need for additional financial support of vocational education is a concern of the council. Therefore, the council recommends the following.

A. The State Board of Education should seriously review the present priorities for expenditure of state education dollars and place additional emphasis on state support of vocational education.

B. The federal government should be encouraged to increase its financial support of vocational education to move toward matching the support provided by the state.

C. All school districts, especially those in eastern Montana should be encouraged to use the permissive mill levy for adult vocational education. This levy would finance programs for those people who cannot reach the area centers.

The State Board of Education presently is involved in a study of the school foundation program and the duplication of educational programs under its jurisdiction. In addition to involvement in these studies, the State Board has appointed from its own members three persons to serve as a subcommittee on vocational education. The subcommittee will review present priorities for expenditure of state education dollars for vocational education and will make appropriate recommendations to the State Board relative to these priorities.

The State Board of Education and the Office of the Superintendent of Public Instruction will continue to work with the Montana Advisory Council for Vocational Education in encouraging Montana's congressional delegation to press for improved vocational education legislation.

One supervisor in the Vocational and Occupational Skills component of the Office of the Superintendent of Public Instruction has been assigned the responsibility of promoting adult education and adult vocational education programs. As part of his promotional efforts, the supervisor will encourage school districts to use the one mill adult education levy and will help them apply for support of adult education programs. The Office of the Superintendent of Public Instruction also has developed a new policy for approving adult vocational education projects. This policy allows schools to submit applications three weeks in advance of offering adult vocational education programs and to receive reimbursement for the instructor's salary upon completion of the course. School districts will be able to offer adult vocational education courses as interest in such courses arises, rather than having to project adult course offerings on a yearly basis.

RECOMMENDATION III—DEVELOPMENT OF VOCATIONAL EDUCATION FACILITIES

Availability of meaningful vocational education is of prime concern to the council. Therefore, the council recommends the following.

A. Additional facilities for post-secondary vocational education centers are crucially needed. The State Board should make every effort to resolve the problem of construction of the proposed Great Falls building.

B. The State Board should take action to resolve the problem of imbalance in the utilization of post-secondary facilities by two or more levels of vocational education programs.

The State Board of Education is fully aware of the need for constructing facilities to house the Billings and Great Falls Vocational-Technical Centers and the need to expand the facilities at the state's other three centers. The State Board will advise the legislature of the critical need for additional facilities to alleviate the overcrowded conditions and of the need for expansion of vocational-technical education offerings at each center.

The Vocational and Occupational Skills component of the Office of the Superintendent of Public Instruction continues to work closely with the administrators of the state's five vocational-technical centers to resolve the problem of imbalance in the utilization of their facilities. The vocational education staff has addressed itself to the problem of secondary students utilizing the post-secondary facilities and is confident that this problem will be resolved by Fiscal Year 1974.

RECOMMENDATION IV—DISADVANTAGED AND HANDICAPPED STUDENTS

The council recommends that the state place a greater emphasis on meeting the needs of the disadvantaged and handicapped.

To better serve handicapped and disadvantaged persons in Montana through vocational education, the Vocational and Occupational Skills component of the Office of the Superintendent of Public Instruction has developed and distributed to local school districts a document entitled, *A Guide for the Development and Installation of Occupational Training Programs and Services for Disadvantaged and Handicapped Persons.* This guide helps local districts plan and organize programs for the handicapped and disadvantaged. A concerted effort has been made during the past year and will continue to be made through Fiscal Year 1973 to identify specific needs of the handicapped and disadvantaged and to meet these needs by helping the students function in regular vocational education programs. This policy of integrating handicapped and disadvantaged students into regular vocational education programs has resulted in greater fiscal efficiency and increased services to more handicapped and disadvantaged persons.

RECOMMENDATION V—INVOLVEMENT IN MANPOWER DEVELOPMENT

Involvement of vocational education in manpower development is of such importance that the council recommends that the State Board of Education utilize information from local advisory committees and the Office of the Superintendent of Public Instruction and that the State Board cooperate with the Montana Manpower Planning Advisory Council in coordinating vocational education program planning and development throughout the state. The State Board should make known to other manpower planning groups the availability of training through existing state vocational education programs.

The newly appointed State Board subcommittee for vocational education will establish a system for continuous gathering of information relating to existing state vocational education programs and program planning and development. The subcommittee will provide this information to the State Board of Education for consideration.

Two staff members of the Office of the Superintendent of Public Instruction serve on the Montana Manpower Planning Advisory Council. These two people have developed an excellent working relationship with this council and presently are sharing information with other agencies represented on this council concerning program coordination and planning.

RECOMMENDATION VI—PRIVATE AND PUBLIC SCHOOLS

To improve the relationship among all educational agencies involved in vocational education, the council recommends that the State Board of Education initiate methods for increasing communication among public and private vocational schools.

The State Board of Education has given the Office of the Superintendent of Public Instruction the responsibility for improving communication among public and private vocational schools in Montana. Presently, the Veterans' Education and Training Supervisor in the Vocational and Occupational Skills competent is working with the private vocational schools on their program offerings as they relate to veterans training. Also, a committee composed of representatives from the Superintendent's office and from private vocational schools has been established through legislative statute to study the status of private vocational schools and to recommend legislative action that will set standards for establishing controlling, administering and accrediting proprietary schools. The efforts of the committee over the past two years has led to improved communication among the private schools and the Office of the Superintendent of Public Instruction.

RECOMMENDATION VII—JOB PLACEMENT OF STUDENTS

Students should be receiving better job placement services. The council recommends that the public schools consider job placement as important a responsibility as job training.

The Office of the Superintendent of Public Instruction will continue to encourage local school districts to establish vocational cooperative education programs which provide the student with classroom instruction and on-the-job work experience. Many of the jobs students hold on a part-time basis lead to full-time employment after graduation. Schools also have been encouraged, especially at the post-secondary level, to work closely with their local Employment Security offices, trade and labor unions, businesses and industry to help students find full-time employment after graduation.

RECOMMENDATION VIII—MOUNTAIN-PLAINS EDUCATION AND ECONOMIC DEVELOPMENT PROJECT, INC.

Because of the potential impact of the Mountain-Plains Education and Economic Development Project, located at the former Glasgow Air Base, the Council recommends that the Board of Directors of the project establish an advisory committee to the project and that the Montana Advisory Council for Vocational Education be represented on that committee.

The Mounain-Plains Education and Economic Development Project has been designated by the U.S. Office of Education as a national career education research model in the United States. Therefore, criteria for the establishment of an advisory committee is the responsibility of the U.S. Office of Education. Presently, the Director of Vocational and Occupational Skills serves as secretary to the Board of Directors of the Project and two people have been appointed by the governors of each participating state (Montana, North Dakota, South Dakota, Wyoming, Idaho and Nebraska) to serve as state liaisons in an advisory capacity. When requested to do so, these individuals will report to the Montana Advisory Council for Vocational Education concerning the project. These appointees are in constant communication with the Director of the Mountain-Plains Education and Economic Development Project, Inc. The appointees work cooperatively with the vocational education and manpower agencies and with other appropriate agencies of the six states relating to program planning.

RECOMMENDATION IX—PUBLICITY FOR VOCATIONAL EDUCATION

The council is concerned that so few people are aware of vocational education opportunities in the state. The council recommends that additional accurate and timely publicity be given to vocational education.

The Office of the Superintendent of Public Instruction, in cooperation with the Montana Advisory Council for Vocational Education and the National Advisory Council for Vocational Education, presently is working on a publicity campaign for vocational education in Montana. This publicity campaign will involve the production of television and radio announcements and the dissemination of 10,000 brochures explaining vocational education in Montana. It is anticipated that radio and television announcements and brochures will be ready for distribution during the early fall of 1972.

RECOMMENDATION X—ORIENTATION TO THE WORLD OF WORK

The council recommends that elementary schools make a strong and organized effort to inform students of various vocations which may be open to them and to acquaint the students with how the educational system can help them prepare for the world of work.

The Superintendent of Public Instruction has assigned a supervisor in the Vocational and Occupational Skills Component the responsibility of coordinating career education activities in the state. This supervisor is chairman of a committee within the Office of the Superintendent of Public Instruction composed of supervisors representing elementary and secondary education. The committee is exploring ways of implementing career awareness programs at all levels of education. It is anticipated that a statewide conference on career education will be conducted to inform schools, businesses and industry of the career education concept and that educators from throughout the state will be called upon to develop a guide for the implementation of courses in occupational awareness in the schools. The Helena Public Schools' project, "The Next Step," which is designed to integrate career concepts with the curricula of grades 1 through 6, also will play a key role in providing school districts with information regarding the implementation of courses in occupational awareness.

RECOMMENDATION XI—STANDARD COURSE TITLES WITH DESCRIPTION

One of the concerns of the council is the lack of standard course and program titles and descriptions among schools offering post-secondary vocational education. The council recommends that the State Board of Education establish standard program and course titles and descriptions. These titles and course descriptions should be used in all literature presenting program offerings.

With the assistance of post-secondary vocational education schools, the Director of Vocational and Occupational Skills and his staff presently are working to standardize program descriptions and course titles among all institutions offering post-secondary vocational education. Standardized program descriptions and course titles will be ready for use in Fiscal Year 1973.

RECOMMENDATION XII—TRUTH IN ADVERTISING

The advisory council maintains that each post-secondary school is responsible for the advertisement of its vocational education programs. In the past, some advertisement has been either inaccurate or false. The State Board should take appropriate action to discourage post-secondary schools from advertising courses which they do not actually offer.

Every effort will be made by the Office of the Superintendent of Public Instruction to watch for misleading advertising and bring it to the attention of the persons responsible. As program descriptions and course titles become standardized, inaccurate advertisements should decrease.

RECOMMENDATION XIII—RECOMMENDATIONS FROM THE FIRST ANNUAL REPORT

The council recommends that the State Board of Education review and give further consideration to the recommendations contained in the *First Annual Report* of the Montana Advisory Council for Vocational Education, submitted in September 1970.

The Office of the Superintendent of Public Instruction will continue to review the recommendation appearing in the advisory council's *First Annual Report* and will incorporate these recommendations into present and advanced planning where appropriate.

STATE ADVISORY COUNCIL RECOMMENDATIONS AND FINDINGS

RECOMMENDATION I—GATHERING OF EMPLOYMENT DATA

The Montana Advisory Council recommends that: The Office of the Superintendent of Public Instruction and the Employment Security Division cooperate in gathering regional employment data. Vocational Education planning should be based on both state and regional data.

Response: The Vocational and Occupational Skills Component of the Office of the Superintendent of Public Instruction is presently utilizing information published by the Montana State Employment Service to project present and future employment trends in Montana. The Montana State Employment Service has been very cooperative in providing copies of monthly and annual reports which give current and projected labor statistics. "Montana Manpower, Projected Montana Employment by Industry and Selected Occupations, 1970–1980," which was released in February by the Montana State Employment Service has been very useful for long-range planning. The Employment Service's monthly report entitled "Montana Employment and Work Force" contains statistics which help monitor employment trends on a monthly basis. Staff members of the Montana Employment Service have, on numerous occasions, assisted the State Superintendent's office in interpreting and analyzing the statistics contained in their reports.

Presently limited regional and national employment statistics are available through the Montana Employment Service and are utilized by the State Superintendent's office. During the coming year the State Superintendent's office will work with the Employment Service to explore the feasibility of developing improved techniques of collecting regional employment data.

RECOMMENDATION II—VOCATIONAL GUIDANCE COUNSELING

The Montana Advisory Council recommends that: The individual training institutions assume the responsibility for informing entering students of the employment possibilities (in- and out-of-state), potential salaries, full descriptions of the training provided and related jobs which may be available to them.

Response: Presently 96 high schools, 11 junior high schools, 2 grade schools, and 4 vocational-technical centers are taking advantage of the project (VIEW) Vital Information for Education and Work which is designed to give students the information which is called for in this recommendation. Project VIEW was initiated by the State Superintendent's office during the latter part of the year and will be expanded during the coming year to include information for use by elementary schools. Information related to employment is constantly updated as part of this project and disseminated to schools.

The vocational guidance project which is conducted for guidance counselors from throughout Montana every summer at Northern Montana College is designed to make counselors aware of job information resources available to them. Guidance counselors who have taken advantage of this summer institute have become better prepared to assist students in making occupational choices. A total of 47 counselors have participated in this institution.

In addition, each of the five vocational-technical centers have admissions counselors and vocational counselors who are responsible for providing students with occupational information at the time the student enrolls in a program. Throughout the student's training he is also periodically informed of possible changes in the employment picture within the occupation he is training for.

RECOMMENDATION III—DISADVANTAGED PERSONS

The Montana Advisory Council recommends that: The disadvantaged receive a high priority for vocational training—whether our judgements are made on a purely humanitarian basis or a coldly economic one. More of the disadvantaged people should be helped by vocational training than are currently being served in Montana.

Response: The State Superintendent's office will continue to promote vocational education opportunities to disadvantaged persons by funding vocational education projects which specifically identify the individuals disadvantagement and then give the student the necessary assistance to succeed in a regular vocational education program. The number of disadvantaged persons served exclusively through the use of vocational funds is naturally based on the amount of funds available for this purpose. However, regardless of whether funds for the training of disadvantaged persons increase or decrease the State Superintendent's office will make every effort to encourage schools to provide training programs which assist the disadvantaged person in becoming a productive employee.

Efforts will also be continued by the State Superintendent's office to coordinate activities with other state and national agencies designed to provide training for disadvantaged persons.

RECOMMENDATION IV—MANPOWER CORRELATION STUDY

The Montana Advisory Council recommends that: As soon as program exit figures are available, the Office of the Superintendent of Public Instruction undertake a manpower correlation study similar to that recently completed in the State of Oregon. This study is an effort to analyze the extent to which educational programs are compatible with manpower requirements. Such a manpower study for Montana should be based on the regional labor market as well as the state market.

Response: The State Superintendent's office is currently studying the feasibility of conducting a correlation study similar to the one described in the recommendation. The depth of such a study will be dependent on financial resources and availability of staff to undertake such a project. At this time it is anticipated that such a study will become part of the total system of planning and evaluation being developed by the State Superintendent's office for the accreditation of the state's five post-secondary vocational-technical centers. It is also anticipated that the exit and follow-up figures presently being gathered by the State Superintendent's office will play an important part in the overall development of such a study.

RECOMMENDATION V—INTER-AGENCY COOPERATION

The Montana Advisory Council recommends that: Continued and intensified efforts be made to increase cooperation, coordination and articulation of educational efforts among agencies as well as individuals in providing for the vocational needs of people.

Response: The State Superintendent's office will continue to work with the Montana State Employment Service, Vocational Rehabilitation and all other agencies involved in occupational training in order to coordinate educational training opportunites for Montana's citizens. Presently members of the State Superintendent's staff serve on state councils and committees which deal specifically with the occupational training of Montana citizens. At present two of the State Superintendent's staff members serve on the Montana Manpower Planning Advisory Council. This council is very active in the coordination and evaluation of manpower training activities in the state and has a membership composed of individuals representing agencies that are responsible for vocational training in Montana.

RECOMMENDATION VI—JOB PLACEMENT COUNSELORS

The Montana Advisory Council recommends that: The Office of the Superintendent of Public Instruction and the Employment Security Division cooperatively develop a system whereby job placement counselors are specifically assigned and strategically located and charged the responsibility of providing job placement assistance for students.

Response: Presently the Employment Service counselors on the local level work with secondary and post-secondary students who desire assistance in securing employment. At the five state vocational-technical centers this cooperation has been further strengthened by center placement personnel working with the counselors at the Employment Service offices to place those students completing training. The feasibility of job placement counselors being specifically assigned to student placement would be subject to the organizational structure and financial limitations of the Montana State Employment Service.

The State Superintendent's office will continue to work with the Montana Employment Service on the state level to encourage close cooperation between schools and employment offices on the local level.

RECOMMENDATION VII—ADULT EDUCATION

The Montana Advisory Council recommends that: The state Board study the possibility of providing added monetary incentives to local districts to encourage them to provide more adult vocational education.

Response: The State Superintendent's office has and will continue to promote adult vocational education programs in local communities. This promotion has been in the form of encouraging local school districts to utilize the one mill adult education permissive levy and submit vocational adult education projects for approval to this office. New procedures developed by the State Superintendent's office last year have enabled local school districts to submit adult vocational education proposals three weeks prior to the start of a class. This procedure has greatly enhanced the flexibility districts have in planning and implementing adult programs.

At this time it would be rather difficult to provide additional monetary incentives to local districts for adult education due to anticipated decreases in federal funding and the substantial increase in vocational education programs at all levels over the past five years which in effect has had the effect of spreading vocational funds rather thin. Additional monetary resources would undoubtedly have to come through increased state appropriations for vocational education.

RECOMMENDATION VIII—ELIMINATION OF UNNECESSARY COURSE REPETITION

The Montana Advisory Council recommends that: The State Board of Education work with all public post-secondary institutions on the problem of acceptance of those proficiencies already possessed by a student, thus eliminating unnecessary course repetition.

Response: The State Superintendent's office, under the auspices of the State Board of Education has begun addressing itself to the problem outlined in the recommendation. Program supervisors in Vocational and Occupational Skills Component of the State Superintendent's office are working with the University system to expand course challenge policies, thus allowing students entering the University System to receive credit for non-transferable courses they have completed at a vocational-technical center. These efforts have been particularly successful in the areas of health occupations and marketing and distributive education.

The State Superintendent's office is also working with Northern Montana College to develop a competency based teacher education model which will allow students preparing to be vocational teachers to receive academic credit for skills they possess in their field of study. By December, 1973 the competencies students should have to be successful will be identified with a delivery system for the entire competency based model being developed by the spring of 1974.

The state's five post-secondary vocational-technical centers allow students to substitute advanced courses for beginning courses or finish their program of instruction early if the students possess those skills that are taught in beginning courses. This concept is presently being carried out in all vocational-technical centers in the state.

ATTACHMENT NO. 1.—VOCATIONAL EDUCATION ENROLLMENTS

	1963			1968			1972			Projected 1977		
Programs	Secondary	Post-secondary	Adult	Secondary	Post-secondary	Adult	Secondary	Post-secondary	Adult	Secondary	Post-secondary	Adult
Part B:												
Agriculture education....	2,222	0	1,043	2,927	37	487	2,894	297	498	3,200	500	1,200
Distributive education....	231	13	63	677	26	54	767	140	760	855	125	880
Health occupations..	0	48	118	0	101	77	0	510	85	200	540	150
Wage earning home economics...	0	0	0	63	0	42	125	43	0	1,000	150	0
Business education....	0	0	0	1,196	65	52	3,300	1,420	3,150	6,000	2,000	3,800
Technical education....	103	95	271	1,032	284	108	268	485	550	425	600	625
Trade and industrial education....	412	62	786	1,762	314	2,381	5,700	1,230	3,120	7,100	1,450	3,600
Disadvantaged..	0	0	0	64	0	0	1,150	250	120	1,500	400	165
Handicapped...	0	0	0	0	0	0	250	60	50	500	125	90
Part D—Exemplary..	0	0	0	0	0	0	[1] 1,233	0	0	860	0	0
Part F—Consumer and homemaking.	3,687	0	431	4,516	0	1,201	6,362	0	564	10,860	0	2,325
Part G—Cooperative.	0	0	0	0	0	0	300	70	0	500	130	0
Part H—Work-study............	0	0	0	64	7	0	61	35	0	70	35	0
Unduplicated total.......	6,655	218	2,712	12,237	834	4,402	21,010	4,230	8,727	31,070	5,530	12,580

[1] Includes 225 elementary students.

SUMMARY AND RECOMMENDATIONS

Due to increased Federal funds that have been made available through the Vocational Education Act of 1963, as amended in 1968, Montana vocational education programs have grown to the point where 63 percent of the State's school-age population is being served by vocational education programs. We are confident that this growth would not have been possible without the Federal funds that were made available to local school districts on a reimbursement basis. The fact that this money is categorical in nature has allowed Montana to specifically develop programs that address themselves to those areas of vocational education for which the money was intended. With increased funding of a categorical nature, Montana's vocational education programs will continue to grow in order that more of our citizens can be served.

NEBRASKA

State Director—Glen H. Strain

A progress report to the General Subcommittee on Education, Committee on Education and Labor, House of Representatives, 93d Congress of the United States—Chairman, Carl D. Perkins (Ky.)

INTRODUCTION

As a result of the Vocational Education Act of 1963 and the Vocational Education Amendments of 1968, along with increased State and local funding, one of the most significant educational movements in the State of Nebraska during the past decade has been the growth and development of vocational education services to youth and adults.

These acts brought to the attention of the people the need for increased vocational education training and also helped to redirect the movement toward social and economic goals. Under the provisions of the new acts, it is possible to make youths and adults employable with all the factors, thereby involved. Vocational education also has the responsibility of serving all ability levels of students of all races, creeds, and colors in all parts of the State.

Enrollments in vocational education in Nebraska have increased 298 percent during the past 10-year period. It is anticipated that the growth will continue at a relatively steady rate if adequate funding is made available to provide needed services.

Total vocational education enrollments for specific years

1963	24,772
1968	47,163
1972	73,857
1977 (projected)	87,458

PUBLIC LAW 90–576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

a. Job Training Enrollments

	Ag	DE	DO	HO	HERO	Office	Tech	T&I
Secondary:								
1963	4,887	253	0	0	0	0	0	43
1968	5,034	1,347	321	0	0	4,505	0	2,459
1972	6,845	3,138	227	132	164	5,309	0	4,180
1977 (projected)	8,556	3,922	500	600	205	6,637	0	6,270
Postsecondary:								
1963	0	0	0	298	0	0	476	0
1968	232	23	0	725	0	302	970	327
1972	357	361	0	1,508	80	1,629	259	2,986
1977 (projected)	499	451	0	1,885	120	2,036	324	3,732
Adult:								
1963	735	1,123	0	448	0	0	0	0
1968	1,496	2,900	0	792	0	1,279	0	6,407
1972	1,021	1,334	0	3,203	174	1,740	731	11,189
1977 (projected)	1,276	1,667	0	4,002	261	2,175	914	13,986

SUMMARY OF JOB TRAINING ENROLLMENTS BY LEVEL OF TRAINING

Year	Secondary	Postsecondary	Adult	Total
1963	5, 183	774	2, 306	8, 263
1968	13, 666	2, 579	12, 874	29, 119
1972	19, 995	7, 180	19, 391	46, 566
1977 (projected)	26, 690	9, 047	24, 281	60, 018

b. General Description

The growth and development in Federal job training programs has registered a tremendous increase during the past 10 years. The training programs were developed in relationship to training needs as reported by the Nebraska Research Coordinating Unit's annual study and as supplemented by the State employment security reports. Close coordination between the State economic development department and the vocational education division also gave direction to training needs within the State.

Since the 1963 Vocational Education Act was implemented, there have been many courses initiated and expanded in all of the areas; however, on the secondary level the greatest expansion has been in the trade and industrial, distribution, and the office occupations education areas. In the agricultural area more emphasis has been placed on agribusiness even though our supply for production agriculture is still considerably short of those needed for entering this phase. The home economics related occupations for gainful employment area has not shown as much growth as the other areas.

All areas at the postsecondary and adult levels have shown continual growth. Health occupations related areas, along with trade and industrial and office occupations areas have shown the most growth.

c. Postsecondary Courses

POSTHIGH SCHOOL JOB TRAINING ENROLLMENTS

Year	Junior and community colleges	Technical institutes	Area vocational schools	Other	Total
1963	0	476	0	298	774
1968	373	1, 064	1, 042	100	2, 579
1972	1, 181	1, 534	4, 365	100	7, 180
1977 [1]					9, 047

[1] Area technical community colleges (2 years), projected.

During the past 10 years, postsecondary enrollments have increased from 774 in 1963 to 7,180 in 1972. Indications are that this growth will continue at a steady rate for the next several years. Beginning on July 1, 1973 the State of Nebraska will be divided into seven technical community college areas. Each area will include all of the 2-year posthigh school institutions under a single area board.[1] Representatives from each one of these boards, plus one representative from the State board of vocational education, will make up the State board for technical community colleges. It is hoped through this means that closer coordination, unnecessary duplication, and economy in overall operations will result in the 2-year postsecondary vocational education area.

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[1] The School of Technical Agriculture, which is a 2-year postsecondary school at Curtis, will still operate as a State school under the jurisdiction of the University of Nebraska.

It should be noted that in fiscal year 1963 only one postsecondary vocational technical 2-year college and three junior colleges were offering vocational courses. In fiscal year 1972 eight postsecondary area or State vocational technical schools and six junior or community colleges were conducting vocational courses.

d. Disadvantaged Students

ENROLLMENTS

Year	Regular programs	Special needs programs	Total
1963	0	0	0
1968	349	0	349
1972	5,734	4,562	10,296
1977 (projected)	7,175	12,000	19,175

NOTE.—Brief description of progress made shown under e.

e. Handicapped Students

ENROLLMENTS

Year	Regular programs	Special needs programs	Total
1963	0	0	0
1968	226	0	226
1972	3,697	1,875	5,572
1977 (projected)	4,505	7,000	11,505

Considerable progress has been made in the disadvantaged and handicapped programs. At the present time there are 113 special programs in the State serving 4,562 disadvantaged and 1,875 handicapped. These programs involve the services of 450 teachers. In addition we are serving 5,734 disadvantaged and 3,697 handicapped via regular vocational programs.

Numerous group meetings and conferences have been held throughout the State. All programs are visited and evaluated.

The progress made is credited to the fact that school administrators and citizens are becoming aware of the need to assist the disadvantaged and handicapped population so they can succeed with occupational objectives. Progress is also attributed to the development of a teacher education program to better prepare teachers to work with the disadvantaged and handicapped.

The special vocational needs program is expected to grow as schools discover the need for occupational education for all people.

f. Adults

It is not possible to make a fair comparison of adults enrolled in part B programs and those enrolled in such courses using Federal manpower funds.

In part B adult programs the enrollment is made up of those people who may or may not be presented employed. It is estimated that probably only about 10 to 15 percent of these people are unemployed and the other 85 to 90 percent are adults in need of retraining for better jobs or upgrading on their present job. Chances are that most of these people will only be going to school part time and working part time; whereas those enrolled in the manpower programs are going full time and also drawing subsistence allowances from the Labor Department while they are in training. Therefore, the following has little meaning insofar as equal comparisons are concerned. It should be noted, however, the great increase of enrollment under part B.

	Total adults enrolled, "part B," Public Law 90-576	Total adults enrolled, MDTA
Year:		
1963	2,306	182
1968	12,874	1,335
1972	19,391	1,770
1977 (projected)	24,281	2,000

g. Financing

(i) The State Board of Vocational Education will determine the relative priority of local applications for Federal funds and the relative priority of vocational education programs, services and activities for the following groups: (a) Persons in high school, (b) persons who have completed or left high school, who require preparation for entering the labor market, (c) persons already in the labor market who need training or retraining for employment, (d) disadvantaged persons, and (e) handicapped persons.

The funding is based on the following criteria:

1. *Manpower needs and job opportunities.*—In allocating funds among local educational agencies, the State Board will give due consideration to information regarding current and projected manpower needs and job opportunities, particularly new and emerging manpower needs and opportunities on the local, State, and national levels.

In complying with the paragraph above, the State Board will give particular consideration to those local educational agencies whose proposed vocational education programs are best designed to (A) fulfill current projected manpower needs in existing occupations at the local level by preparing students for current or projected job opportunities in such occupations, or (B) fulfill new and emerging manpower needs at the local, State, and national levels by preparing students for new and emerging job opportunities at such levels.

(1) The State Board will identify current and projected manpower needs and job opportunities, particularly new and emerging occupations on the local, State and national levels through cooperatively working with the Nebraska Department of Labor's Division

of Employment, the Nebraska Research Coordinating Unit, the statewide, the Omaha, and the Lincoln Manpower Planning Councils, and other agencies and associations. Data available through these agencies will be reviewed and used as basis for establishing priorities for vocational education programs and activities for high school youths, post high school youths, adults, disadvantaged persons and handicapped persons, and for construction and ancillary services including guidance and counseling. This information will be updated periodically. In some instances, this will be annually and in others it will be more frequent such as monthly, quarterly and yearly reports from the State Division of Employment on information they have available.

(2) For purposes of securing reasonable manpower information, State employment service areas, and/or technical community college areas, and/or education service unit areas, and/or statewide manpower needs will be utilized in order that information regarding manpower can be accurately drawn. The State Board will use manpower projections on these bases. The manpower needs from the projections will be periodically updated.

(3) Information regarding current and projected manpower needs and job opportunities will be incorporated into the long-range program plan. Efforts will be made to encourage the development of and support of programs designed to fulfill these needs and opportunities by planning for vocational education programs in such areas.

(4) The evaluation by the State Advisory Council, the State supervisory staff, and the local evaluation committee, will be used for purposes of checking on the placement of graduates and their reactions to training given in light of changing occupational patterns.

(5) Information obtained through cooperative arrangements will be used in annual and long-range programs to promote vocational programs which meet current and projected manpower needs.

(6) Other information, how obtained and how often updated, see paragraphs (1) and (2).

2. *Vocational education needs.*—In allocating funds among local educational agencies, the State board shall give due consideration to the relative vocational education needs of all the population groups referred to in 3.15 of the State plan in all geographic areas and communities in the State, particularly disadvantaged persons and handicapped persons.

In weighting the relative vocational education needs of the State's various population groups, the State board shall give particular consideration to additional financial burdens which may be placed upon certain local educational agencies by the necessity of providing vocational education students, particularly disadvantaged or handicapped students, with special education programs and services such as compensatory or bilingual education, which are not needed in areas or communities served by other local educational agencies in the State.

A. The State board will identify the vocational education needs, including the need for special vocational education programs and services for disadvantaged and handicapped persons, through surveys and studies such as those conducted by local schools, colleges, and universities, the Nebraska Research Coordinating Unit, the Nebraska Department of Labor, Division of Employment, local SMPC agencies and other pertinent sources. In identifying these needs, consideration will be given to the State's and community's occupational needs and how they relate to the necessary input and output of vocational trained personnel; to the capabilities of the various applying educational institutions to provide the type of occupational training needed, and to the long-range projections in light of information regarding current and projected manpower needs and job opportunities.

B. Periodic evaluations will be conducted by local educational agencies and State staff to determine, insofar as possible, if the local educational agency is, in fact, meeting the identified needs.

3. *Relative ability to provide resources.*—In allocating funds among local educational agencies supported in whole or in part with local tax revenue, the State board shall give consideration to the relative ability of the local educational agencies, particularly those in economically depressed areas and those with high rates of unemployment, to provide the resources necessary to meet the vocational needs in the areas or communities served by such agencies.

In determining a local educational agency's ability to pay, the State board shall give primary consideration to the "wealth per pupil."

The local educational agency's ability to pay in relation to the number of students it is educating (ADM) will be determined primarily by the "wealth per pupil." It is based upon the total assessed tangible valuation of the district or area served by the agency.

This information is available through the State department of education statistical division and is updated annually.

4. *Relative costs of programs, services, and activities.*—In allocating funds among local educational agencies, the State board will give due consideration to the cost of the vocational programs, services, and activities provided by local educational agencies which is in excess of the cost which may normally be attributed to the cost of vocational education in such local agencies.

In determining the relative priority of local educational agencies in terms of costs of education, the State board will give primary consideration to local educational agencies that demonstrate that excess costs are being incurred due to such conditions as the following:

A. Excess costs of materials and services, such as construction or equipment costs, or teachers' salaries, which are due to variations in price and wage levels or other economic conditions existing in the areas served by the local educational agencies; and

B. Excess costs accruing to local educational agencies because of the necessity of supplying special services (other than those necessary to meet the special vocational education needs of certain population groups, such as disadvantaged and handicapped persons) and bus transportation for students or unusual and excessive maintenance costs for outdated buildings and facilities, which are not usually part of the cost of education provided by other local educational agencies in the State.

Each application will be evaluated and a weighting will be applied, depending upon the amount and degree of the excess costs of vocational education and upon the adequacy of the justification of the excess costs.

Information justifying excess costs for vocational education will be required from local educational agencies and will be updated annually.

(ii) Omaha—Only city in excess of 250,000 population:

Total amount Federal money spent	**$2, 867, 566. 48**
Amount Omaha received	**569, 887. 45**
Percent Omaha received	**19. 87**
Total amount State money spent	**2, 180, 679. 51**
Amount Omaha received	**483, 751. 60**
Percent Omaha received	**22. 18**
Nebraska population	**1, 485, 321**
Omaha population	**354, 389**
Omaha percent of Nebraska population	**23. 86**

Economically depressed areas (except Omaha)

Amount Federal EDA received	**83, 166. 02**
Percent EDA received	**2. 9**
Amount State EDA received	**3, 331. 00**
Percent EDA received	**. 15**
EDA population	**7, 440**
EDA percent of Nebraska	**. 5**

h. Construction and Equipment

	Federal	State	Local
Equipment:			
1963-68	889, 704. 00	6, 481. 33	934, 784. 24
1969-72	761, 080. 71	36, 739. 29	2, 091, 246. 82
1973-77	761, 080. 71	36, 739. 29	2, 091, 246. 82
Construction:			
1963-68	877, 523. 28	0	877, 523. 28
1969-72	0	0	0
1973-77	0	0	0

Investments in equipment for local schools have enabled the schools to equip their vocational programs much better than they alone could have done. Most of our schools are now becoming fairly well equipped.

Funds for construction have not been provided since 1967. Construction work being done is strictly on the local basis.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS:

a. Exemplary Programs and Projects

	Number of programs	Persons served
Year:		
1968	0	0
1972	5	7, 664
1977 (projected)	10	15, 000

We have been very pleased with what is happening in this area. The use of 100 percent Federal funds has given the State and local educational agencies a chance to try innovative and exemplary type projects. The results have been good and many of the things tried are now being integrated into regular programs and projects.

The following have been successful programs which we think have made a contribution:

Project recovery.—A program on the part of the Omaha Suburban Area Council of Schools to assist dropouts and potential dropouts in their educational and vocational endeavors. The project focuses on the growing number of dropouts, approximately 600 yearly in the OSACS area, who are either unemployed or underemployed. Many dropouts have been trained and hired; others, through this project have reentered the main stream and reenrolled in school. A highly successful project.

Project occupational orientation.—The project was designed to familiarize elementary, junior, and senior high students with the broad range of occupations for which special skills are required and the requisites for careers in such occupations. Participants are those students from schools within the boundaries of the area served by Central Nebraska Technical College. Eight millimeter film loops and casette tapes, along with other equipment and materials needed to fulfill the objectives, have been distributed to the participating schools. It is estimated that approximately 22,000 students will be involved. A very successful project.

Project summer supervised educational experience for vocational agriculture students.—The program through the use of a mobile unit provides "on site" program courses of learning during the summer months in the Aurora, Nebraska Public School District. Utilization of the mobile unit "on site" provides more meaningful education by making available live animals, crops, resource personnel, etcetera. Special attention is given to those students with socio-economic or academic handicaps. Approximately 100 students are served through this project. Although a small project, this has been very successful.

These three projects are examples of exciting things which are being done through exemplary funding in Nebraska.

The major thrust in this area from now through 1977 will be towards the career education thrust. Implementation of a comprehensive career education program for a rural school district is being funded this year through exemplary funds. We plan to also use exemplary funds in community placement as a support to career education program being initiated in the Lincoln Public Schools.

Another exciting project which we are initiating this year has to do with coordination of field services for students having completed a vocational training program at the Kearney Youth Development Center. We hope to help keep these youngsters on the job after they return to their respective communities and thereby prevent their return to the correctional institute.

b. Residential Vocational Education

No comment.

c. Consumer and Homemaking

Approximately 15 percent of all consumer and homemaking students are disadvantaged or handicapped.

Gainful employment in home economics related occupations is not reported here as it is a separately funded program. The enrollments in this area are shown in a 2a job training enrollments.

Since the passage of the Vocational Education Amendments of 1968, consumer education has been an integral part of all vocational consumer-homemaking courses, both secondary and adult. However, special projects in economically depressed areas have given increased emphasis to consumer education.

In Omaha, for example, a consumer hotline and resource center was established in an economically depressed area to provide information to citizens requesting it. The resource center has been a gathering place for local citizens and the person located at the center has become a friend to all in the area.

Although not designated as an economically depressed area, a home economist in the North Platte area has developed a strong adult consumer education series with the Spanish speaking low-income people in that community. Social groups and informal workshops on various issues in consumer education have been very successful. Ms. Kramer has established excellent rapport with this group and has become a personal friend of many in the area. The purpose of this program is the training of low-income mothers to be wiser consumers so that they may develop a more healthful, satisfying, and meaningful family life.

A center has been established in an economically depressed area of Omaha to serve dropouts and especially teenage mothers. A very strong component of this program is the family life education instruction. Facilities are available to care for the children and all instruction is individualized. This center has enabled many students to return to school and complete their high school education.

Consumer-homemaking programs have continued to grow in numbers and quality. However, without Federal funding, there will be no leadership at the State level for supervision, curriculum development, or related youth organizations. If this occurs, the quality will undoubtedly diminish and home economics classes will not give emphasis to consumer education and family life education.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963), vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)						1976-77 (projected)					
		Home economics useful employment homemaking	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics			Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	[1]8,341	11,260	130	20,663	2,595	150	164	45	5	22,000	2,750	175	175	50	5
Adult	8,942	6,784	312	6,173	358	259	224	64	3	6,000	400	275	300	75	5
Total	17,283	18,044	442	26,336	2,953	409	388	109	8	28,000	3,150	45	476	125	10

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[1] Does not include grades 7–8.

d. Cooperative Vocational Education

The following statistics are related to Nebraska's effort in Cooperative Vocational Education as a direct result of part G of the 1968 amendments. Funds under part G were first utilized in Nebraska during the 1969-70 school year (fiscal 1970). All data provided is related to "new" or "expanding" programs initiated under part G of the 1968 amendments. (This includes only a part of the State's total cooperative effort.)

Year	Number of programs	Student enrollment
Secondary:		
1963	0	0
1968	0	0
1972	66	806
1977 (projected)	103	1,340
Postsecondary:		
1963	0	0
1968	0	0
1972	4	79
1977 (projected)	52	875
Totals:		
1963	0	0
1968	0	0
1972	70	885
1977 (projected)	155	2,215

e. Work Study Programs

	Students served
1963	None
1968	459
1972	265
1977	515

Twelve secondary schools conducted work study programs for 146 students in 1972, while seven postsecondary schools provided work study opportunities for 119 students. Although these students benefited greatly in experience and financial help from these work experience programs, there were many more needy eligible students who could benefit from the program; however, because of limited funds, only the 265 students were served.

f. Research and Training

The Federal regulations establish guidelines for part C vocational research moneys. These guidelines have become the operational parameters for many research coordinating units in various States. The Nebraska RCU has established the following objectives for its operation:

(*a*) To stimulate, coordinate, and assist in planning studies toward the development of curriculum for vocational education.

(*b*) To maintain, further develop, and disseminate information for vocational education.

(*c*) To stimulate and coordinate vocational research for vocational education.

(*d*) To obtain data on occupational opportunities for determining instructional programs.

These broad objectives of the RCU have been the basis for a variety of activities and projects that have created an impact upon vocational education in Nebraska.

The following activities are listed according to their relationship to the objectives listed above—To stimulate, coordinate and assist in planning studies toward development of curriculum for vocational education.

The research projects that relate to curriculum are varied in methodology and emphasis, The research project funded at Milford Technical College in 1971, was a followup of students that is now having an impact upon curriculum revision within the college. The procedure developed and instrumentation used to find out from former students what changes needed to be made have been valuable locally and throughout the State. The impact of a single study has contributed to wider assessment activities designed to improve curriculum.

Another research project funded in 1971; and completed late in 1972, was the, occupational opportunities study, at Central Nebraska Technical College. A 33 percent sample of all employers was developed and interviews were conducted by students and staff. This project was modeled after the occupational opportunities report, conducted by the RCU on a statewide basis. The Central Nebraska Technical College study was limited to their 20 county area and was much larger percentagewise than the statewide study. The results of this study have been used to plan new programs and identify employment opportunities for students.

A third research project having impact upon curriculum is the study on occupational competencies conducted at Kearney State College. This study was directed at determining minimum levels of competency required for the building trades. Nine areas were identified in building trades: Carpentry, air-conditioning, heavy equipment, plumbing and pipefitting, sheet metal, roofing, masonry, painting and decorating. A model was developed using tradesmen, contractors, and educators to develop competency listings. This study has been the basis for curriculum change in the trade and industry area of the vocational teacher training program of the State. Inservice institutes are now being conducted and planned for the training of teachers at local levels. The model procedure developed for identification of competencies in the building trades area is now being used in the business office occupations area.

To maintain, further develop, and disseminate information for vocational education

One of the most complex problems in the improvement of education programs is communication. The wide variety of needs for information regarding administrative planning, curriculum development and teaching technique require a similar wide variety of information sources. Many local institutions are not able to maintain adequate staff or resources to keep current on vocational legislation, curriculum and guidelines. The RCU has maintained a policy of cataloging and storing materials for vocational education and making these materials available throughout the State. The RCU has mailed out some 27,000 newsletters and checked out approximately 1,000 documents from the RCU library in the past year. There is no way to measure the impact of this activity upon vocational education in the State. It is assumed that persons requesting material or services from the RCU are involved in some type of curriculum revision or community assessment that will lead to curiculum improvements.

To stimulate and coordinate vocational research for vocational education

Soliciting of proposals, preparing guidelines for proposals, evaluating and reviewing proposals, monitoring and evaluating active projects, is a complex task that the RCU is involved in relating to this objective. The fact that someone knows of a project that has relevancy for certain problems, relating to vocational education, and can pass on this information, is an important part of the coordination and communication aspect of vocational research. The annual study occupational opportunities in Nebraska, conducted by the RCU is an effort to coordinate data for planning and administration activity for vocational programs. The coordination of activity involving teacher educators, local vocational programs, and division of vocational education staff and the RCU is a constant program development activity.

To obtain data on occupational opportunities for determining instructional programs

A management information system is necessary for both planning and administering, as well as stimulating vocational programs. The occupational opportunities report, which is a major activity of the RCU, is a preliminary step toward a more complete information system. The coordination of data necessary to show opportunities, output of graduates in training programs, enrollments and balance of need, is an objective of the management system. The full impact of this kind of data being available to administrators for making decisions in program planning has not been fully realized.

Summary

Statistics that reflect the impact of vocational research on the Nation are available through the baseline study conducted by Dr. Arthur Lee, University of Arizona. The data for Nebraska in this study are a part of the overall picture that is beginning to emerge.

To develop a dynamic vocational education system serving the needs of people without research is unfeasible. A futuristic society must have some type of activity that can delve into new concepts in a research pattern before committing large amounts of time and effort to an untried theory. This is the obligation of research—to try and test the untried and to report the outcome, good or bad, to those in charge of planning and directing larger vocational activity.

STATE ADVISORY COUNCIL

The Nebraska Advisory Council for Vocational Education, was officially appointed by the State Board for Vocational Education in January of 1969, in compliance with a mandate in the Vocational

Education Amendments of 1968. During the calendar year of 1969, the Council fulfilled the compliance provisions of membership certification, budget approval, adoption of operational procedures, and selection of professional and clerical staff. During that year, the Council duties and functions were carefully weighed and an organizational structure was established to fulfill those responsibilities.

The first evaluation report of vocational education of the Nebraska Council was prepared and released in September 1970. Evaluation and implementation functions have been in continuous process since that time, based on priority needs of vocational education as determined for the State of Nebraska.

AREAS OF COUNCIL ACTIVITY

a. Guidance and counseling

The Counsel identified guidance and counseling as an area of priority need in Nebraska. Elementary and secondary school systems were strongly oriented to academic preparation of students with major emphasis on continuing into higher academic levels. Alternatives were poorly developed for students not academically inclined or desiring a broader concept of self-fulfillment as a contributing citizen.

Resultant action—The guidance and counseling effort of both the secondary and postsecondary institutions has undergone a considerable widening of scope. May more opportunities are now available to students in planning for their future. Enrollments in the postsecondary technical colleges have been increasing at the rate of about 125 percent each year while enrollments in the State 4-year institutions have dropped. The statewide guidance effort is now focused more realistically on the needs of the individual.

A State master plan has subsequently been developed for guidance and counseling. The role of the counselor has been expanded to include orientation to the world of work and career exploration, leading to wider career choice decisions on the part of the individual.

A change has also been brought about by the counselor preparation agencies throughout the State. Arrangements are being made by some agencies to provide orientation to the occupations and work experience for counselors at the preservice and inservice basis.

The Council has also recommended a more systematic followup of former students by the local educational agencies, based upon the premise that the best indicator for the future is what has been happening in the past. Followup of former students is also a vital input for local vocational education programs as the needs after leaving school are valuable criteria for better meeting the future needs of inschool students.

b. Image of Vocational Education

The earlier evaluation reports for Vocational education in Nebraska carried a number of recommendations for improving the image of vocational education. The Council has advocated the comprehensive approach to education which does not categorize students into first and second-class citizenship, depending on their educational goals.

Also recommended was the career education approach to meeting the total needs of the individual, not merely the academic needs. The Council recommended: All persons in education from the State board to the local teacher should strive to further the image of vocational education. Acquiring a job should have equal prestige with the academic requirements for students. Postsecondary opportunities for continuing vocational education should be stressed and financially supported with emphasis equal to that given to higher education.

It was also recommended that the image of vocational education could be improved by upgrading the educational quality of vocational programs and by minimizing the influence that may have nurtured the negative concepts.

Resultant action.—The fact that vocational enrollments are on the increase at a spectacuar rate at both the secondary and postsecondary levels documents the fact that the image of vocational education has improved in Nebraska. There have been many news releases on what vocational education has to offer in terms of total student development. Prior to 1964, about 15 percent of the secondary students were enrolled in vocational programs at the public secondary level. During the past 8 years, the vocational enrollment has been increasing at the rate of 2–4 percent per year with a total of about 37 percent of the secondary students enrolled in a vocational program in 1972. Postsecondary vocational enrollments in Nebraska have increased about 928 percent over the same 8-year period.

The Council prepared a set of six 60-second video tapes on improving the image of vocational education which were aired on all TV stations in Nebraska and the Sioux City, Iowa TV station for a 2-month period in 1972. Public service TV time was donated for this activity. One station alone donated a total of 42 spot announcements, worth $3,825 if charged at the standard commercial rate.

A special publication entitled "*The Preparation Gap*" was prepared by the Council to relay recommendations of the Council through a popularized approach. The concept of career education in the comprehensive school was advocated as a broadened approach to meeting the educational needs of the individual. A total of 4,000 copies were disseminated to organizations and agencies in the State.

c. Career Education

The Council was the first agency in Nebraska to officially advocate the concept of career education as a more desirable alternative to meeting the educational needs of the people in the State. The 1971 evaluation report defined the career education concept and recommended steps for implementation to meet State needs.

Resultant action.—The career education concept has received wide acceptance over the State and is generating an influence that is badly needed in Nebraska. The overall statewide progress of implementing career education has not been as rapid as the Council felt was possible and needed. The State Board has accepted the career education concept, but has moved cautiously in order to assure that the program of implementation was soundly based. Most of the early career education leadership was on a volunteer basis and emanated from the Division of Vocational Education. A State task force on career education ultimately evolved from the State Department of Education, with a chairman and steering committee charged with the responsibility to provide leadership for implementation of the career education concept.

A State school administrators' meeting was held during August 1972, with 400 persons in attendance. A followup meeting to acquaint and involve persons outside of education followed in March 1973. Very few State resources have been alocated for implementation of the career education to date. Resources from the State legislature and the Governor involving funds and staff have not been forthcoming as in many other States. Assistance in the implementation of career education has been supplied by people who have not been relieved of other full-time duties. Several well administered State models have been developed with USOE funds as pilot programs for local schools. People desiring to see career education in action have models to view without having to leave the State.

Several small resistance pockets do exist within academic circles, but these pose no serious problem. The climate for further growth of career education is right. The only needed ingredient is the blessing of the State political leadership and a concerted commitment from those who control the leadership and financial resources in the State.

d. Preparation of Occupational Teachers

In a search for delimiting factors that restrict the growth and quality of vocational education in the State, the council quickly identified the lack of vocational teachers. Even though it had been a general practice in the State to designate and reimburse 4-year baccalaureate institutions for this purpose, there still remained a shortage in most of the occupational areas. The area of health occupations alone, involving over 98 full-time teachers with great potential for employment opportunities in the state, has had no formal teacher education program to serve the occupational area. Many of the agencies were not doing a followup of their previous graduates and had no estimate of the needs of their occupational areas. The Council has strongly recommended in each annual evaluation report to date a greater coordinated thrust in the preparation of occupational education teachers.

Resultant action.—There have been dynamic changes toward improvement in the preparation of occupational teachers in Nebraska. There is a better understanding of the needs in each occupational area and a resultant increase in the number of teachers prepared. Several vocational research projects have been funded for the purpose of identifying vocational teacher competencies and coordinating vocational education curricula.

A center for vocational technical education has been established at Kearney State College which has provided leadership in meeting vocational teacher education needs. Considerable progress has been made by developing inservice vocational teacher workshops and seminars for gearing up to meet specific teacher education needs. The preparation of teachers for special vocational needs and the disadvantaged classes has benefited greatly through the inservice process.

Leadership and professional dedication has also played a significant part in the preparation of vocational teachers. Coordination from the State Division of Vocational Education under the Education Professions Development Act has helped establish a structure which assures a more direct system of communications and accountability. A State Consultant of Education Professions Development has been established within the Division of Vocational Education to coordinate the vocational teachers education agencies. A coordinator has been designated within each participating institution which has authority over the various vocational teacher education departments.

The council has made specific recommendations for the competency based concept of preparing occupational teachers; this has received enthusiastic acceptance. Progress in the implementation of competency based vocational teacher preparation has been impressive with prospects for continued developments. Especially noteworthy has been the evolvement of programs for the preparation of vocational teachers at the postsecondary level. Specific competencies needed by the postsecondary teacher have been identified that assure the depth and intensity of occupational experience and which include teaching methods and other competencies needed by the postsecondary vocational teacher.

The council has made a careful analysis of other specific competencies needed by vocational teachers that were recommended in the 1972 Evaluation Report for further amplification through the vocational teacher agencies. These include:

Preparation of the local plan for vocational education;
Developing and managing effective local advisory committees for vocational education;
Conducting a local vocational needs study and community analysis;
Organizing, promoting, and administering local adult programs in vocational education;
Developing and managing effective local vocational student activities;
Special competencies needed by teachers that work with the vocational disadvantaged and handicapped;
Techniques for organizing and involving input from local business and industry into local vocational curriculum preparation;
Techniques and competencies for organizing and implementing programs in Career Education; and
The competency of developing and stating education objectives and measuring accomplishment.

e. *Profesional Staffing for the Division of Vocational Education*

For the past 2 years the council has been concerned with the shortage of professional staff within the Division of Vocational Education. Enrollments have been increasing to the place where a point of diminishing returns is feared. It is a real concern whether the professional staff available can provide the administrative and supervisory functions called for by the Nebraska constitution.

Staff additions have been requested annually, with only a token response from the legislature in meeting the needs that have been identified. The council views the inadequate staffing within the Division of Vocational Education as one of the most serious delimiting factors blocking further growth and expansion of vocational education at the present time.

Resultant action.—Little has been accomplished to date by way of correcting the problem as identified. In most cases, one or two professional people are added each year with supportive clerical staff. The council views this type of token response to be totally inadequate for a program that is growing at the rate of over 5,000 enrollees each year. The council also believes that the shortage of professional staff is a poor example of management of State resources that provide for our human resource development. Under no condition is it possible, with the staffing allocated, for quality vocational education to be assured uniformly in the State. It is also questionable whether further encouragement should be offered to schools that wish to initiate new programs.

Even though a more desirable result is not available for report at this time, it does not mean that further effort should be discontinued on this identified need. Hopes for some gain this year are even more dim with the Nebraska legislature's adopting the Governor's budget recommendations which were totally oriented toward tax relief rather than meeting the needs of education. The struggle will be continued toward this vital need as long as it continues to be a deterrent to future growth and quality in providing the opportunity of vocational education to the people of Nebraska.

f. Legislative Representation for Vocational Education

The Nebraska Advisory Council for Vocational Education has established the first official lobbying voice for vocational education in the history of the State. Communicative linkages have been established with the State Board, the Community College Board, the State School Boards Association and other agencies that have input for educational legislation in the State.

Resultant action.—A State system has been established for postsecondary vocational technical education that includes the total area of the State. Alterations are still being made on the system to make changes for unforeseen problems as the system develops.

A continuous struggle has been underway to obtain adequate State funding for vocational education for all phases of vocational education. No progress has been made on this problem in the 1973 session of the Nebraska legislature. A new offensive will be launched for the next legislative session and succeeding sessions until a realistic commitment to vocational education is attained.

g. Vocational Data Information System

The establishment of a broad comprehensive data base is vital to all educational agencies in making sound plans for the future. The council also depends upon the data base for many of the evaluative activities that have been conducted. The council has made recommendations concerning the availability of data in each of the evaluation reports and has identified specific areas where data have not been adequate for good educational planning.

Resultant action.—A good data base for vocational education in Nebraska is being developed and contributes to the rationale for sound vocational planning. The occupational opportunities studies, conducted by the Nebraska Research Coordinating Unit, compare favorably with the best data available in any other State. Priorities for vocational research needs have been established and reevaluated annually to adapt to the changing needs of the State. A special provision for research minigrants has been recently approved by the State Board to provide incentive to local communities and other agencies for small vocational research studies.

The council has continued to make recommendations for increased emphasis in areas where data are needed for future planning and evaluation activities. Included in this list of recommendations are the followup studies of previous students on a coordinated statewide basis. The number of followup studies has increased significantly, especially for the postsecondary schools. A practical procedure has been well established which is not difficult to follow.

h. Increased State Support for Vocational Education

With the growth that vocational education has recently been experiencing the problem of financing is inevitable. The Federal funds and increased emphasis at the national level have been mainly responsible for the enrollment growth in Nebraska. An increase in local funding has also followed because of the local responsibilities involved. Despite continued requests for proportionate increase in State funds, they have remained relatively unchanged during the dynamic growth period. The legislature has shown some consideration for the problem of reducing the local tax load; however, with no changes in the amount of funds allocated for vocational education by the State, the major part of the financial load for vocational education still falls on the local community.

Resultant action.—The council conveyed the problem of State involvement in the support of vocational education to each member of the legislature in the form of the State evaluation report. A special meeting was held with the chairman of the Legislative Appropriations Committee. A subcommittee of the council met with the Governor to call attention to the inadequacies in his budget recommendations for support of vocational education. Many members were contacted individually. After the 1973 session of the Nebraska legislature there was a reduction in State support for vocational education even though the Governor has made strong political statements in support of vocational education. The problem is not dead. The offensive is already being formulated for the next session of the legislature with stronger documentation and renewed effort.

Even though change has not taken place as rapidly as might be desired, there have been many gratifying responses to council recommendations by the Nebraska State Board for Vocational Education which lend an optimistic outlook for the future. The Nebraska State Plan for Vocational Education is prepared and approved 2 or 3 months before each new fiscal year. It includes input from all levels of vocational education as solicited from the public hearings, educational agencies, plus the general public. The council is one of the major contributors to the State Plan through the annual evaluation reports. Each year a special section is included in the State plan for recommendations from the council which directly concern the State Board and the Vocational Education Division. A high percentage of the recommendations are implemented in this fashion. After the State plan is approved by the Regional and U.S. Office of Education and placed into operation, the evaluation process is again repeated by the council on the newly revised State plan. The resultant process has evolved into the most functional systems model for education in the State at the present time. The planning and administration of the State plan is done by the State division of vocational education. The approval is by the State board, and the regional and U.S. Office of Education, and the evaluation and accountability phase is provided by the advisory council.

Conclusion.—There are a great many accomplishments of recommendations made by the Nebraska Advisory Council for Vocational Education which have been helpful to vocational education in Nebraska. It is realistic to assume that all recommendations have not received a positive response and this is certainly the case in Nebraska. The council reevaluates priorities each year, and those recommendations not implemented are reconsidered for continued recommendation.

The climate for accountability of vocational education in Nebraska through the evaluation of the Nebraska Advisory Council is healthy. The members of the council are respected for their individual contributions. The State board has been appreciative for the council's evaluation and analysis, and has delegated resources at their disposal toward correcting the deficiencies noted. The clientele in vocational education throughout the State has been highly complimentary concerning the council's efforts in addressing problems for improvement of the status of vocational education in the State.

The fact remains that some problems are much more difficult to correct than others. The council has not accepted failure where the need is vital to the success of vocational education in the State. All necessary recommendations will be continued until a successful conclusion is reached.

SUMMARY AND RECOMMENDATIONS

As a result of the stimulation and direction of Federal Congress through the 1963 Vocational Education Act and the 1968 Vocational Amendments, along with increased Federal funding, enrollments in all areas of vocational education have increased in the past 10 years to the extent that vocational education is now the fastest growing segment in the Nebraska educational picture.

The legislature, State administration, State board of vocational education, State board of technical community colleges and the administration in the State Department of education have all encouraged the further development and expansion of vocational education.

The image of vocational education has undergone a decided improvement during the past few years. In 1972, 36.8 percent of all secondary students were enrolled in a vocational program, while the 1964 enrollment was only 15 percent of the total secondary students.

The use of categorical aid through the Federal vocational education funds has helped the States to be more responsive to the changing needs of our increasing technological society.

The use of some of these Federal funds toward the career education concept is at last putting meaning into school for many frustrated and bewildered youngsters. Many youngsters have dropped out of school since it did not relate to the real world for them. Many of the students went through high school without having the least idea of what they wanted to do for a living. Many did not have any interests toward the world of work since they were not aware of the opportunities, nor their strengths and weaknesses toward these opportunities. Many of these youngsters were good students, but when facing college didn't have the least idea of what they wanted to major in, and the story goes on and on. Good quality career education can help overcome many of these troublesome areas.

The addition of the Tydings amendment which made all Federal funds 2-year money, certainly proved to be very vital in assisting States to properly plan and to make the best use of their money.

Funds appropriated for vocational education by national Congress, however, will not allow us to reach our established goals for 1977. Program growth is dependent upon investments of dollars. Full funding of the Federal acts would help our State to achieve the goals envisioned.

Recommendations

a. Maintain categorical aid for vocational education under existing Federal Vocational Education Acts (Public Law 90–576).

b. Extend the Tydings amendment or provide other means, whereby a State would have up to 2 years to spend a fiscal year's appropriation.

c. Provide immediate full funding under existing vocational education acts (Public Law 90–576).

d. One of the historical strengths of vocational education in the United States has been the designation of one State vocational board in each State to receive and disburse all vocational funds. All Federal legislation should be planned to maintain this method of operation, whether it is termed vocational or occupational education.

e. The matching of part B funds in Public Law 90–576 on a statewide basis should be continued.

f. Continue requirement and full funding of State advisory councils. People of the State have every right to be represented and heard in the planning, administration, and implementation of vocational education. This council serves well this need for involvement.

After visualizing the potential effects of the Better Schools Act of 1973 (special revenue sharing for education), it is my opinion that the present vocational education acts are much more preferable even though they are only partially funded. There are many objectionable features in H.R. 5823, S. 1319. This type of Federal legislation could set vocational education back 50 years, and could be the means of total destruction. I recommend the Better Schools Act of 1973 be killed in committee.

NEVADA

State Director—R. Courtney Riley

INTRODUCTION

The attached enrollment report (contains a listing of total enrollments for fiscal year 1963, 1968, 1972, and 1977 (projected).

PUBLIC LAW 90–576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

a. Job Training Enrollment

The attached enrollment report shows job training enrollments by job training area (including occupational home economics as per memo of May 25, 1973) and by high school, post-high school, and adult for fiscal year 1963, 1968, 1972, and 1977 (projected). The report includes all persons enrolled in vocational education courses supported by Federal funds under part B as well as by State and local funds.

b. General Description

Actual and projected growth and development of vocational education programs for youth and adults have been particularly significant in Nevada, caused in part by a booming economy, in part by a very heavy relative population increase, and in part by renewed emphasis toward vocational education in public schools and postsecondary and adult institutions. New and expanded job fields have tended to be reflected in the vocational education programs in Nevada, and this trend has resulted in such courses as airframe and powerplant mechanics, chef and culinary arts training, hotel/motel management, automobile air conditioning, and other specialized areas, ornamental horticulture and other agribusiness related occupations, stenotype, and other secretarial occupations of a highly specialized nature, new paramedical technical, and trade and industrial occupations as they have emerged in Nevada.

c. Postsecondary Courses

Included in the attached enrollment report is a breakdown of the post-high school enrollments according to enrollments in junior and community colleges, technical institutions, area vocational schools, and other postsecondary institutions. Postsecondary enrollments have expanded greatly in the last 10 years in Nevada both due to the expanding economy and to the advent of community colleges in Nevada. Publicly supported community colleges have been started in the University of Nevada system during the last 10 years, with central administrative units in Elko, Las Vegas, and Carson City.

d. Disadvantaged Students

The attached enrollment report shows a listing of disadvantaged students by regular and special needs programs for fiscal year 1963, 1968, 1972, and 1977 (projected). Both inside and outside the frameworks of the public school system, disadvantaged students during the past 10 years have been afforded opportunities in vocational education on an increasingly significant basis. The special programs designed to assist disadvantaged students in meeting their occupational objectives have covered such areas as remedial reading and arithmetic for vocational students so they could succeed in their vocational programs, supplementary programs of instruction for neighborhood youth crops working with school students, counseling and other programs at State institutions such as the Nevada State Prison.

e. Handicapped Students

The attached enrollment report shows enrollments by regular and special needs programs for fiscal year 1963, 1968, 1972, and 1977 (projected). Progress in respect to vocational programs for handicapped students has highlighted such programs as a work training program for the mentally retarded at the Nevada State Hospital, and an educational television project for occupational awareness for special education students in Washoe County School District.

f. Adult

The attached enrollment report shows a breakdown of the adult enrollment according to those in programs who are unemployed and in need of job training—preparatory—and those who are presently employed and in need of job retraining—supplementary. Enrollments also are compared with the number of adults enrolled in programs supported by Federal manpower funds. This section covers fiscal year 1963, 1968, 1972, and 1977 (projected).

g. Financing

(i) Methods used for the distribution of part B funds among Nevada local educational agencies which consider the relative fiscal abilities of local educational agencies and the relative differences in cost among such agencies and the use of variable matching of local funds are described in detail in part 3.2 (pages 46–64) of part I of the enclosed Nevada State Plan for Career Education.

3.2 *Allocations of Funds to Local Educational Agencies for Programs, Services, and Activities.* The State Board shall allocate funds under Part B to local educational agencies based on the following policies and procedures:

3.21 *Local Application.* Agencies desiring to participate in the vocational education program under the State Plan must submit Annual and Long Range Plan for Vocational Education at the time and on the forms prescribed by the State Board. . . Specific instructions for completing local plans are furnished the agencies by memo.

3.22 *Procedures for Processing Local Applications for Vocational Programs, Services, and Activities.*

3.22-1 *Programs, Services, and Activities Undertaken by the State Board:* The State Board *does not* directly administer area vocational schools, or directly provide vocational programs, services, or activities for students.

3.22-2 *Programs, Services, and Activities Undertaken by Local Educational Agencies:* A due date for submission of local plans is established by the State Board and made public by memoranda and other means. Guidelines, forms, and instructions, including evaluation criteria, are provided all agencies which operate programs under the State Plan and to all other agencies upon request. Technical assistance is available from the State Board staff upon request by local educational agencies. Upon receipt of local plans, the State Board staff and outside consultants review each plan in accordance with the published criteria. The reviews are summarized, and the Director makes funding decisions on the basis of the review recommendations. The Director then officially notifies the local educational agencies of their funding awards.

3.22-3 *Coordination With Other State Agencies:* The cooperative agreements with other agencies appearing in the Certificate Appendix express the State Board's intent that proposals will be reviewed by those agencies as appropriate.

3.23 *Procedures for Processing Local Applications for Construction.*

3.23-1 *Projects Undertaken by the State Board:* The State Board *does not* directly implement construction projects.

3.23-2 *Projects Undertaken by Local Education Agencies:* The procedures outlined in 3.21, *Local Application*, and 3.22-2, *Programs, Services and Activities Undertaken by Local Educational Agencies*, also apply for construction projects. However, such projects shall describe in detail the intent to undertake a project of construction, acquisition, expansion or alteration of area vocational facilties under the respective jurisdiction. The application shall be subject to the regulation, criteria and review of this State Plan and the criteria established by the State Planning Board.

3.23-3 *Coordination With Other State Agencies:* The following other agencies or persons on the State Board staff will be involved in processing local applications for construction:

Director, Support Services Branch, State
Department of Education.
Nevada State Planning Board.

3.24 *Maintenance of Effort.* Federal funds made available under Part B of the Act will not supplant State or local funds but will be used to supplement or increase the amount of State and local funds that would, in the absence of Federal funds, be made available for the purposes of Part B. No payments of Federal funds will be made to a local educational agency which has not maintained its combined fiscal effort from State and local funds from the preceding fiscal year, unless the State Board finds that such decrease is warranted by unusual circumstances which could not fully be antcipated or compensated for by the applicant agency. However, a combined fiscal effort in the preceding fiscal year, shall not be deemed to be a reduction from that in a second preceding fiscal year, unless the per pupil expenditure for vocational education, ancillary services and activities from State and local funds in the preceding fiscal year is less than that in the second preceding fiscal year by more than five percent.

3.25 *Matching.*

3.25-1 *Overall State Matching:* In accordance with criteria established in 3.26 of this part of the Plan, the State Board shall allocate funds under Part B of the Act to applicant agencies in a manner which will result in at least one dollar of State and local funds being expended for each one dollar of Federal funds expended under the State Plan for Vocational Education Program, but not in a manner which requires local educational agencies to match Federal funds at a percentage ratio uniform throughout the State.

3.25-2 *Reasonable Tax Effort:* No local educational agency with taxing authority, which is making a reasonable tax effort, will be denied funds for new vocational education programs solely because it is unable to pay the non-federal share of the costs of such programs.

The tax effort of all such local education agencies shall be represented by the ratio between the total annual revenues available to the agency and the total wealth of the area served by the agency. Such local educational agency's tax effort shall be considered reasonable whenever it is equal to or greater than average tax effort.

3.26 *Criteria for Determining Relative Priorities of Local Applications.*

3.26-1 *Manpower Needs and Job Opportunities:* Annually upon request, the Nevda State Employment Security Department provides the State Board staff with manpower need and job opportunity information which shows projected employment patterns by Standard Metropolitan Statistical Area for specific jobs in Nevada. This information is forwarded to all agencies desiring to submit local plan applications for vocational education for their use in justifying planned additions to or deletions from their programs. Relationships among the local plan applications, the Statewide manpower need and job opportunity information, and the State long-range plan, are attained through State Board staff application of the following published criteria for use in priority determination of local applications, and for evaluating the vocational education programs as described in Section 1.5 of this Plan:

1. Is the program developed by the agency comprehensive and balanced in terms of labor market needs?

For example:

Are program additions, deletions, and major purchases done with that rationale evidenced?

What effort will be made in Job Market and Job Performance Analysis?

Are the agency's efforts compatible with existing labor market information?

Does the program address new and emerging occupational areas?

2. Does the agency's program demonstrate that adequate consideration is given all twelve vocational education functions in relation to its size and scope, and the resources it makes available for vocational education?

For example:

Job Market Analysis.

Job Performance Requirements Analysis.

Information obtained from program evaluations will also receive consideration.

3.26–2 *Vocational Education Needs:* Annually upon request, the Nevada State Employment Security Department provides the State Board staff with projected information by Standard Metropolitan Statistical Area regarding Nevada's population, emphasizing such aspects of the population as unemployment, disadvantaged population, minority group distribution, age, sex, handicapped populations, and other such factors. The information is forwarded to all agencies desiring to submit local plan applications for vocational education for their use in justifying planned additions to or deletions from their programs.

Relationships between the local plan applications and the Statewide needs of specific identified population groups is attained through State Board staff application of the following published criteria for use in priority determination of local applications and for evaluating vocational education programs as described in Section 1.5 of this Plan:

1. Is the program developed by the agency designed to meet identified population needs?

For example:

Disadvantaged.
Handicapped.
Unemployed Youth.
Economically Depressed.
Female Head of Household.
High School Dropouts.
Bilingual.
Aged.
Other.

2. Does the agency's program demonstrate that adequate consideration is given all twelve vocational education functions in relation to its size and scope, and the resources it makes available for vocational education?

For example:

Population Needs Analysis.

3. Is the agency planning for or operating an articulated program to prepare all people for employment,

For example:

Relationship between levels (Presecondary, Secondary, Postsecondary, Adult).

"Vocational"—"Academic" mix and relationship.

Relationship between "Service Areas" (Agriculture and Trade and Industrial, etc.).

Accessibility of program to all needing it.

Relationship between the program of instruction and on-the-job training such as Cooperative Education and Work Study.

Results obtained from periodic program evaluation will also receive consideration.

3.26–3 *Relative Ability to Provide Resources:* Local tax revenues are available to county school districts in Nevada, and are levied on the basis of the assessed evaluation at a uniform rate. These revenues apply to the support of educational programs, kindergarten through twelfth grade. Local educational agencies do not have tax revenues to support postsecondary or adult education programs. Likewise, other applicant agencies (State University, Community College) are State supported but do not have any support from local tax revenues. Since the assessed evaluation within a county school district along with the district's receipts from P.L. 874, are the main sources of local revenues for secondary programs, the per pupil assessed evaluation (adjusted in relation to P.L. 874) within a county school district as compared to the average per pupil assessed evaluation (adjusted) Statewide is a reflection of the seventeen districts' comparative ability to pay for educational program, K–12. A local county school district's Federal funding for secondary vocational programs is raised in proportion to the extent that their per pupil assessed evaluation (adjusted) exceeds the Statewide average or is decreased in proportion to the extent that their per pupil assessed evaluation (adjusted) is below the Statewide average.

Since there are no local reveneus for postsecondary and adult programs, the formula factor reflecting applicant agency's ability to pay is constant, and has no effect on Federal funding for postsecondary and adult vocational education programs. However, those applicant agencies not receiving State support for postsecondary programs will have a factor applied to their postsecondary entitlement to insure the equitable distribution of funds according to the needs of the students.

3.26–4 *Relative Costs of Programs, Services and Activities:* Statewide average secondary per pupil expenditures in relation to each county school district's per pupil expenditure is used as the base for determining the district's excess cost for secondary vocational education. If a district's secondary per pupil cost exceeds the Statewide average, then Federal funding for that district is increased proportionately. If a district's secondary per pupil cost is less than the Statewide average, then Federal funding for that district is decreased proportionately.

Since there are no local revenues for postsecondary and adult programs, the factor reflecting applicant agency's excess cost is constant, and has no effect on Federal funding for postsecondary and adult vocational education programs.

3.26–5 *Other Criteria of the State:*

The following criteria for local application review are published and have been made public:

1. Is the agency's program operated in cooperation with other agencies—both public and private?

2. Does the agency's program demonstrate that adequate consideration is given all twelve vocational education functions in relation to its size and scope, and the resources it makes available for vocational education?

For example:

Curriculum Resources and Ancillary Services.
Program Planning.
Program Review.
Vocational Education Promotion.
Student Recruitment.
Counseling and Guidance.
Vocational Instruction.
Placement.
Evaluation.

3. Does the agency plan reflect that an overall advisory committee will be established and functional?

For example:

How many meetings will it have?
What is the function of the committee?
What are the criteria regarding membership?

EVALUATION CRITERIA—REVIEW OF THE AGENCY'S INDIVIDUAL PROGRAMS OF INSTRUCTION (REVIEWED ON A 0–4 POINT SCALE)

1. To what extent do course offerings within the program area reflect an emphasis on skill development?

2. To what extent do course offerings within the program area reflect an emphasis on student awareness and exploration of vocational and consumer and homemaking opportunities and needs?

3. To what extent do course offerings within the program area prepare students for further vocational instruction?

4. To what extent do course offerings or supportive activities enable students to make informed and meaningful occupational choices?

5. To what extent is classroom instruction supplemented by field, shop, laboratory, or other experience?

6. To what extent are individual differences identified or served in the program of instruction?

7. Is the program of instruction of a duration that students are able to achieve the occupational objective specified?

8. To what extent are the number of personnel adequate in relation to the number of students to insure quality instruction in preparing students for job areas as appropriate?

9. If youth group activities are appropriate, to what extent do they relate to the program of instruction being offered by the agency?

10. To what extent does the program reflect changes due to results and experiences of other programs and projects?

11. To what extent does the program extend educational opportunities to people at times other than the normal school day—summer, evenings, etc.?

12. To what extent do program procedures relate to identified need and objective?

EVALUATION CRITERIA—REVIEW OF FISCAL INFORMATION

1. Is the cost attributable to vocational education under the provisions of P.L. 90–576?

2. Is the cost appropriate to the function?

3. Is the cost reasonable in light of the type of resource or item requested?

4. Is the agency maintaining its level of local financial effort attributable to vocational education?

SPECIAL PROGRAM CRITERIA

Handicapped

1. The extent to which the agency has an effective process used to identify handicapped persons to be served.

2. The extent to which the agency shows why these handicapped persons cannot succeed in regular vocational programs.

3. The extent to which the agency provides effective services to them so that they can achieve their vocational education objectives.

4. The extent to which the agency carries out a cooperative effort with other public and private agencies in relation to vocational education for the handicapped.

Disadvantaged

1. The extent to which the agency has an effective process used to identify disadvantaged persons to be served.

2. The extent to which the agency shows why these disadvantaged persons cannot succeed in regular vocational programs.

3. The extent to which the agency provides effective services to them so they can achieve their vocational education objectives.

4. The extent to which the agency carries out a cooperative effort with other public and private agencies in relation to vocational education for the disadvantaged.

3.27 *Application of Criteria in Determining the Relative Priority of Local Applications.* The following system is applied to determine the relative priority allotting Federal funds under Part B of the Act on the basis of local plan applications for vocational education. An entitlement is calculated for each agency submitting a local plan application. The program is reviewed and evaluated for reimbursement by the staff and others as appropriate. Actual funding is calculated and announced to each agency.

ENTITLEMENT

Secondary Entitlement

To insure that each school district offering secondary vocational education programs has an equal opportunity for Federal vocational funds, the following entitlement formula will be used to determine distribution of such funds. The formula is based on the criteria expressed in Section 3.26 of this Plan and on the ratio between the total number of secondary teachers and the number of secondary vocational teachers in the district.

$$\left(\frac{A}{B}\right)\times(C)\left(\frac{D}{E}\right)\left(\frac{F}{G}\right)=X$$

$[(.05\,H+1)+I]$ = Applicant Agency Secondary Entitlement

A = Total Amount Allocated for Secondary Purposes, Part B.
B = Statewide Total, Number Secondary Teachers for All Applicant Agencies.
C = Number Applicant Agency Secondary Teachers.
D = Applicant Agency Pupil Cost.
E = Statewide Average Pupil Cost.
F = Assessed Valuation (Adjusted) Statewide Average.
G = Per Pupil Assessed Valuation (Adjusted) Applicant Agency.
H = The Number of Identified Depressed Areas within the Applicant Agency's Jurisdiction.
I = ($1.00 × Number of Population Unemployed) 15–19 years of age.

Postsecondary Entitlement

To insure that each postsecondary institution offering vocational education programs has an equal opportunity for Federal vocational funds, the following entitlement formula will be used to determine distribution of such funds. The formula is based on *the criteria expressed in Section 3.26 of this Plan* and on *the number of Full-time Equivalent Vocational Students in each postsecondary institution the fiscal year preceding the one being considered for funding* compared to *the number of total Statewide Full-time Equivalent Vocational Students the fiscal year preceding the one being considered for funding.*

$$\left(\frac{A}{B+1.4C}\right)D = \text{Applicant Agency Postsecondary Entitlement}$$

A = Total amount allotted for postsecondary vocational education under Part B of the Act.
B = Number of Statewide Full-time Equivalent Vocational Students in State Supported postsecondary institutions the fiscal year preceding the one being considered for funding.
C = Number of Statewide Full-time Equivalent Vocational Students in non-State supported postsecondary institutions the fiscal year preceding the one being considered for funding.
D = Number of each postsecondary institution's Full-time Equivalent Vocational Students in the fiscal year preceding the one being considered for funding. For non-State supported postsecondary institutions, the number of Full-time Equivalent Vocational Students is multiplied times 1.4 in order to reach an adjusted or weighted total.

Adult Entitlement

To insure that each agency offering adult education programs has an equal opportunity for Federal vocational funds, the following entitlement formula will be used in part to determine the distribution of such funds:

$$\left(\frac{A}{B}\right)C = \text{Applicant Agency Adult Entitlement}$$

A = Total amount allocated for adult vocational education programs, Part B.
B = Number of hours of adult vocational instruction to be offered by all agencies Statewide.
C = Number of hours of adult vocational instruction to be offered by each agency.

REIMBURSEMENT

Reimbursement, All Levels

$$\left(\frac{X}{Y}\right)Z = \text{Applicant Agency Reimbursement}$$

X = Average total points earned, staff evaluations, Part B (takes into consideration criteria under Section 3.26 including subjective criteria relative to manpower needs), secondary, postsecondary, and adult.

Y= Total possible points, staff evaluations, Part B, secondary, postsecondary, and adult.

Z= Approved amounts requested by applicant agency, secondary, postsecondary, or adult in accordance with procedures established in 3.26-5 of this State Plan.

FUNDING

Funding, All Levels

If the application has been approved with or without modification, the applicant agency is funded either to the level of its entitlement or to the level of its reimbursement, whichever is more or to an equitable level of funding in light of the amount of Federal funds available for the appropriate level and/or part of the Act.

Any applicant agency funded above its entitlement may be required to negotiate a firm budget in light of program reviews and plan content.

All factors remaining unchanged, the amount of Federal funds budgeted by level and/or part of the Act will not be reduced from one fiscal year to the next, providing the level of Federal funding is not reduced.

(ii) Following is a detailed breakdown on the dollar amount and percentages of Federal and State funds going to the two major cities in Nevada and to the "poorest county" in Nevada (Lincoln County would have to be considered the "poorest county" because of the decline of the general economy in the area and the excessively high unemployment and youth unemployment rate).

Selected agency	Population		Federal, State dollars allotted part B, secondary	
	Number	Percent	Dollars	Percent
Clark County School District (Las Vegas)	303,900	55.30	$115,688	55.05
Washoe County School District (Reno)	145,900	26.55	43,934	20.91
Lincoln County	2,600	.47	9,403	4.47
Total	549,500	100.00	$210,158	100.00

Note.—It should be especially noted that the funds allotted under part B, secondary are representative of Nevada's efforts to distribute Federal and State vocational education funds equitably.

h. Construction and Equipment

Following are investments for construction and equipment from Federal, State, and local sources for vocational education in Nevada:

1963	$56,087
1968	58,783
1972	110,375
1977 (projected)	150,000

Federal funds during this period were only used for construction in one instance—to assist with the construction of the Southern Nevada Vocational-Technical Center in Las Vegas in fiscal year 1967.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

(i) An industrial arts curriculum project, "The World of Construction and World of Manufacturing," in Washoe County School District.

(ii) "Sequential Approach to Vocational Education" (SAVE). The health occupations component of this program was implemented in Washoe County School District.

(iii) A special counseling program was implemented in Clark County School District at the Southern Nevada Vocational-Technical Center, the purpose of which was to recruit students from disadvantaged areas into the center.

(iv) Mobile units for vocational business and office occupations was implemented in three rural schools in the Elko County School District.

(v) A technical illustration project was implemented at Churchill County School District.

(vi) A special vocational guidance program was implemented in the Elko County School District.

These projects had a combined total of 697 enrollments. The estimated number of enrollments for fiscal year 1977 will be 753, with an indeterminate number of projects.

b. Residential Vocational Education

If adequate funding were available, three residential vocational education centers on the postsecondary level would be able to be operated in Nevada. The lack of postsecondary opportunity for rural and remote rural youth getting out of school is evident from the fact that many of these youngsters go to out-of-State private or public schools to attain that experience. Residential centers would be a partial answer to satisfying this need of young people in Nevada.

c. Consumer and Homemaking Education

ENROLLMENTS

	1962-63 (fiscal year 1963), vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	0	4,419	(1)	2,699	(1)	(1)	(1)	(1)	(1)
Adult	0	1,065	(1)	401	(1)	(1)	(1)	(1)	(1)
Total	0	5,484	463	3,100	478	78	592	(1)	(1)

[1] Not available.

The attached enrollment report indicates consumer and homemaking enrollments for secondary and adult education for fiscal year 1963, 1968, 1972, and 1977 (projected). Enrollment in gainful home economics programs is shown under programs under part B and disadvantaged and handicapped breakouts are provided. Part B disadvantaged and handicapped enrollments are not broken out for occupational home economics. However, they are not broken out for any other service area such as health occupations. For total part B enrollments who were disadvantaged and handicapped and enrolled in regular programs, including occupational home economics, lines 3 and 4 of the Enrollment Report should be noted.

d. Cooperative vocational education

The attached enrollment report includes enrollments for fiscal year 1963, 1968, 1972, and 1977 (projected). This program has had a tremendous impact on Nevada high school operations and instructional philosophy. Though Federal funds supported most of the cost initially, local educational agencies are increasingly bearing the cost of the cooperative programs piloted in their schools.

e. Work-study programs

The attached enrollment report shows the number of students served for fiscal year 1963, 1968, 1972, and 1977 (projected). The program has been increasingly aligned to serve the disadvantaged, and an extremely high percentage of these students have stayed in school and continued in their vocational programs.

f. Research and training

The research coordinating unit (RCU) has played a major role in the development of vocational education in Nevada—particularly in regard to relating exemplary program efforts to the available research and expertise in the field. It has also been active in vocational research and dissemination-related activities.

The role of the RCU in relation to the career education effort in Washoe County School District has yielded particularly significant results in terms of systematic school district change to address career education.

STATE ADVISORY COUNCIL

The State advisory council has contributed to the Neveda vocational education effort through its evaluation of State and local programs, through its unique ability to attain the cooperation of business, industry, labor, other special interests groups, and the lay public, and through its activities in helping local educational agencies establish and effectively operate advisory committees. The State department of education considers that the following three specific recommendations and the actions resulting from them were most useful to the operation of vocational education programs during the past 5 years:

(*a*) A specific recommendation to streamline plans required of local educational agencies.

(*b*) A specific recommendation to develop more concrete relationships with business, industry, labor, other special interests groups, and the lay public.

(*c*) A specific recommendation to broaden the vocational education perspective to cover career education activities.

SUMMARY AND RECOMMENDATION

Federal funds for vocational education have made a difference in Nevada education. The evidence of program creation and growth in relation to cost to the government stands out as irrefutable proof of the value of continued and even increased categorical support of vocational education. Though leaving education to the educators may not always be sound judgment, the track record set by vocational educators, with the help of the U.S. Congress since 1916, is strong, meaningful, and worthy of continued support. With this experience in view, we would offer the following recommendations:

(*a*) That the total amount of funds available to a State for vocational education be known at least 6 months prior to the beginning of the fiscal year.

(*b*) That systematic and accelerated operational awareness, exploration, and preparation of all children and youth should receive top priority and Federal support. The alternative would be a significant increase in retraining and other remedial programs for people who could have already prepared themselves for careers.

(*c*) That vocational education is unique in that it can be meaningful to people of all ages and in all educational levels up to the baccalaureate degree. It transcends the capabilities of any single existing educational or noneducational institution currently existing in the country today. In order for a comprehensive approach to career education to take place, a central agency must carry the control and responsibility to insure that all career education for all people on all levels is available in a sequential and relevant pattern, whether developmental or remedial. Only an agency which is substantially nonoperational by nature can effectively and without conflict of interest insure that such career opportunities are available to the citizenry. State departments of education, generally under the direction of elected boards, are the sole agencies capable of meeting these criteria. Boards of regents are operational, often too many in number, and generally operate within the context of the postsecondary and adult program. Employment security, office of economic opportunity, and other like agencies are not only operational, but they are generally capable only of remedial efforts due to lack of State and local tax base support. Departments of education are not generally operational agencies and are capable of insuring that presecondary, secondary, postsecondary, and adult students can be served through developmental and remedial career education programs.

(*d*) That the allocation formula for Federal vocational funds should be changed from its base of two factors: population and per capita income. While the per capita income factor is dictated by law, no balancing consideration is given to a cost of living index; the result is that allocation is not necessarily consistent with numbers of people in need.

(*e*) That the excess property acquisition for vocational education be reinstated. During its operation, the program contributed to equipping vocational programs to an unprecedented level. This was especially valuable in rural school districts where even a high level commitment is difficult to put into broad practice.

(*f*) That the Better Schools Act of 1973 has questionable value in expanding and promoting vocational education programs. It seems to disregard proven success and valuable programs, and has a frightening potential to replace a cohesive vocational education effort with a smattering of pet projects.

ENROLLMENT REPORT - VOCATIONAL EDUCATION - NEV. 1973

Nevada State Department of Education
Vocational-Technical and Adult Branch
Carson City, Nevada 89701

VOCATIONAL AREA				1963*	1968*	1972	1977 (Est.)
1. TOTAL ENROLLMENTS				12,932	17,501	21,935	59,565
2. Part B Enrollments	JOB AREA	01 -Agriculture		416	610	1,549	1,469
		04 -Distribution		330	814	962	1,718
		07 -Health		299	373	1,867	5,172
		0902-Home Ec. Occup.		0	463	592	1,893
		14 -Business & Office		3,426	3,111	7,210	14,282
		16 -Technical		1,906	3,115	3,394	11,194
		17 -Trade & Industrial		1,[illegible]	3,137	7,758	26,767
	LEVEL	SECONDARY		3,611	3,679	14,024	36,519
		POST SECONDARY	Jr/Comm. Coll.	0	0	241	7,111
			Tech Inst.	0	250	0	0
			(Area Voc Sch.)	-	-	-	(7,111)
			Other	809	1,155	1,809	1,812
		ADULT	Supplementary	703	2,358	1,329	4,533
			Preparatory	3,279	4,181	2,769	9,456
** MDTA Enrollments				362	348	442	500
3. Disadvantaged Enrollments	Special Programs			N/A Not identifiable in FY 1963	294	2,248	2,929
	(Regular Programs)				(304)	(2,612)	8,092)
4. Handicapped Enrollments	Special Programs			Included under disadvantaged enrollments above as special needs--not identifiable.		77	1,051
	(Regular Programs)					(94)	(2,252)
5. Exemplary Program Enrollments				N/A--Not operated in these two years.		697	753
6. Consumer & Homemaking Enrollments	Secondary			3,121	4,419	2,699	7,370
	Adult			1,319	1,065	401	1,829
	Disadvantaged				45	478	1,418
	Handicapped					78	231
7. Cooperative Program Enrollments, Part G				N/A--Not operated in these two years.		1,511	6,319
8. Work Study Program Enrollments				83 (Supervised work exp. program)	100	73	73 (Est)

NOTE: Enrollments are unduplicated--that is, if Johnny Jones enrolled in three classes, he was only counted once. Where the vocational area is in parenthesis above, then the enrollments are duplicated and Johnny Jones would have been counted three times.

* Reports for these years do not include Exemplary or Cooperative Education programs, since FY 1969 was the first year they operated. Also, these figures are duplicated by program area, since they were so tabulated.

** MDTA Enrollments shown here for purposes of comparison.

NEW HAMPSHIRE

State Director—Neal D. Andrew

INTRODUCTION

Overall vocational program enrollment has increased 219½ percent over the last 10 years, from a reported total of 7,693 in 1963 to a reported enrollment of 24,579 in 1972 for all vocational programs.

Without Federal funding it would have been impossible to achieve the growth in vocational programs that we have experienced over the last 10 years, nor could we continue to maintain these programs if Federal funding were to stop.

The State Department of Education must address itself to the problem of providing quality vocational education to a largely sparse population spread over a wide geographic area. Seventy percent of the towns in New Hampshire have a population of 2,500 or under. These lightly populated areas have high unemployment rates and are depressed areas. The Department of Education is attempting to deal with this problem by sponsoring and implementing the 20 vocational area centers concept, which would provide well-planned, well-staffed, and well-equipped vocational facilities at the area centers. Sending schools could use these facilities to train their high school students in entry-level skills and have the students return to their home schools for their academic training. These area center facilities could also be used for the training of adults and others not in the secondary school system, who have a need for new training, up-grading, or retraining.

The State Department's efforts are geared to the development of open entry-exit programs capable of individualizing instruction to meet the differing needs of its students which would include disadvantaged and handicapped.

We are anticipating $1 million for tuition transportation and $3.5 million for construction from the State legislature in order to implement the 20 area centers concept.

Our overall high school enrollment has been increasing at the rate of 3,000 a year since 1968. Statewide projections indicate that it will continue at this rate through 1977. Of great concern to us is that in 1972 almost 54 percent of the high school graduates in this State did not go on for further training. We feel keenly the responsibility to provide job skills training to this portion of the high school population. In addition, 21 percent of the students who entered 9th grade 4 years ago dropped out of school before reaching the 12th grade. Again, we take very seriously the responsibility for providing these youngsters with the skills they need to enter the job market.

Of great concern to us, is that even at the rate our programs are expanding, we cannot catch up to the overall growth rate of the student population requiring our attention without additional funding.

Below is a chart of vocational education enrollments for the years requested.

JOB TRAINING ENROLLMENTS

Program	1963				1968				1972				1977			
	Secondary	Post-secondary	Adult	Totals	Secondary	Post-secondary	Adult	Totals	Secondary	Post-secondary	Totals	Totals	Secondary	Post-secondary	Adult	Totals
1. Agriculture	364	131	16	511	426	235	16	677	918	268	130	1,414	1,820	322	158	2,300
2. Distributive education	25		226	251	78			78	332	61		418	676	147		823
3. Home economics	2,921		695	3,616	5,624		884	6,508	7,717		913	8,630	9,800		1,000	10,800
Occupational home economics					42			42	244		92	336	544		396	940
4. Office occupations	(1)	(1)	(1)	(1)	734	86	10	830	6,495	124	427	7,046	12,682	424	727	13,833
5. Health occupations		148	95	243		74	32	106	30	343	688	1,061	130	582	888	1,600
6. Trade and industry	364		1,721	2,085	718	484	1,075	2,277	1,401	894	2,668	4,963	1,801	981	2,718	5,500
7. Technology			987	987		191	106	297		313	398	711		2,000	450	2,450
Grand totals	3,674	279	3,740	7,693	7,622	1,070	2,123	10,815	17,137	2,003	5,316	24,579	27,453	4,456	6,337	38,246

[1] None reported.

a. Job Training Enrollments

Please refer to the chart above for figures.

b. General Description

Vocational enrollments for gainful employment have increased 1000 percent in the period from 1963 to 1972. An indication of the rate of acceleration is reflected in the fact that there was an increase of 130 percent from 1963 to 1968 (a 5-year period) and an increase of 427 percent from 1968 to 1972 (a 4-year period).

Our figures further indicate that in 1965 we were able to provide vocational programs for gainful employment to only 2 percent of high school students grades 9–12. In 1972 we were serving 18½ percent of grades 9–12 and in 1977 we project serving at least 29 percent of this population.

We have initiated new programs in radio and TV careers, maintenance mechanics, power mechanics, electricity-electronics, service-station attendants, hotel-motel, environmental technology careers, health occupations cluster, child care aides, and community services at the secondary level.

We have expanded automotive mechanics programs, printing, machinists, electricity, electronics, drafting, sheet-metal, building construction, food service, distributive education, all business and office occupations, and all agriculture programs, especially horticulture. For example, in T&I alone, the 20 programs that existed in 1963 had expanded to 31 programs in 1968 and had gone up to 56 programs in 1972.

c. Postsecondary Courses

The postsecondary level is one that has achieved dramatic growth in New Hampshire. This was the direct result of State legislation and funding of a postsecondary vocational-technical system now consisting of six vocational-technical colleges and one technical institute located in different areas of the State.

Our enrollment jumped from under 500 day and evening students in 1963 to 2,003 day students in 1972, and 6,000 adult registrations for 1973.

In 1963 there existed two postsecondary institutes in Portsmouth and Manchester; one in an old button factory, the other in an abandoned school. These two institutes had been primarily serving returning veterans.

In 1965, a vocational-technical institute opened in Concord, offering associate degree programs leading to semiprofessional technical jobs in the engineering technologies and in data processing.

In 1966, a college was opened in Berlin offering industrial and health programs. In the same year, new buildings were opened in Manchester and Portsmouth.

In 1968, new colleges were opened in Laconia and Claremont, and in 1970 a new facility was opened in Nashua.

Since 1965, the technical institute has expanded to include a new health education facility, a library, and a women's residence.

The Berlin plant was expanded to include business and management. We are planning to open a new automotive building in Nashua to accommodate 125 more day students and a new health education facility in Claremont which will accommodate an additional 100 students.

The postsecondary vocational-technical colleges now offer 2-year associate degree programs in:

- Automotive
- Business education:
  - Accounting.
  - Marketing and Management.
  - Midmanagement.
  - Secretarial science.
- Culinary arts.
- Drafting.
- Fire service.
- Graphic arts.
- Heating, refrigeration, and air-conditioning.
- Industrial electricity.
- Industrial electronics.
- Internal combustion engines.
- Machine tool processes.
- Welding.

As well as 1-year diploma programs in:

- Medical assistant.
- Medical laboratory assistant.
- One-year secretarial.
- Practical nursing.

The technical institute in Concord offers an associate in science degree in the engineering technologies:

- Electrical engineering technology.
- Electronic engineering technology.
- Mechanical engineering technology.

The Institute also offers data processing with options in computer programing and business management.

Associate in science degree are offered in the following programs:

- Dental hygiene.
- X-ray technicians.

An associate degree is offered for nursing, and a 1-year diploma is awarded to dental assistants.

d. Disadvantaged students

Our records on the enrollment figures of disadvantaged students are reliable only for fiscal 1972. We identified 1,943 disadvantaged students who were served by vocational programs.

Our thrust in this area has been to increase the number of regular programs which will contain modifications so that these students will not be segregated. It is critical that disadvantaged students have their special needs met in learning environments which are individualized for their special needs. In 1972 we had 30 programs offering special supportive services and program modifications at designated area vocational centers. In addition, we had 3 programs operating at other high schools.

We also ran 20 additional special programs for students who were unable to function in modified regular programs.

We anticipate expanding the supportive services programs at area vocational centers to 100 by 1977, and to 40 programs in other high schools.

Our energies have also been directed to the development of useful diagnostic tools for identifying kinds and types of disadvantages, as well as training teachers to recognize them and respond with appropriate learning opportunities.

Due to Federal funding, strides have been enormous in terms of identification, diagnosis, and prescription for disadvantaged students.

e. Handicapped Students

Again, our enrollment figures for handicapped students are reliable only for fiscal year 1972. We identified 357 students who were being served by vocational programs. As more handicapped students are being identified, our efforts are directed to the development of special prevocational and vocational programs within the regular school system which can accommodate them without discrimination.

We are encouraging the integration of special programs into regular vocational programs. The most dramatic example of this is the program for the deaf which was run at the vocational-technical college at Claremont. Ten deaf students participated in regular programs in drafting and electronics. Interpreters were provided in each classroom for these students. Regular students were so interested in communicating with the deaf that they requested and received training in sign language and are presently interacting with deaf students and integrating them into extramural activities. This program has been so successful that it is being expanded to the high school in Claremont.

We anticipate the development and support of diagnostic and prescriptive services in vocational areas at two area vocational centers next year. We expect to expand this to the 20 area vocational centers by 1977.

We are attempting to integrate special programs such as those for the mentally retarded into regular programs. We anticipate that by 1977 this will be accomplished.

At the moment we are running a horticulture program for mentally retarded students at Manchester. It provides such students with saleable skills in vocational agricultural areas. This program serves 97 students.

We are providing prevocational assessment and exploration for the severly emotionally disturbed at the New Hampshire Hospital, in order to prepare these patients with opportunities to make meaningful vocational choices when they return to open society.

We are now able to support three programs for handicapped persons who are institutionalized. They are being provided with occupational skills appropriate to their capabilities.

f. Adult

With the addition of the consultant in adult education to the staff, we have been able to expand and add new adult education programs. We anticipate being able to serve 6,000 adults by 1977, and for next year we are adding the following courses:

Agriculture—5.
Distribution—1.
Health Occupations—24.
Occupational Home Economics—3.

Consumer and Home Economics—25.
Office Occupation—10.
Technical Education—2.
Apprenticeship—10.
Trade & Industry—5.

All our adult programs are either supplemental or apprenticeship training. Preparatory training is provided by manpower training. The enrollment table on page 2 indicates the vocational areas serving adults. For fiscal 1972, 446 of these students were enrolled in apprenticeship programs in blue print reading, carpentry, electricity, masonry, plumber and pipe fitting, construction and maintenance, and metal working occupations.

Adult programs have been added in health occupations. In 1972, 332 adults received training in emergency medical technician and ambulance assisting attendants programs. Fire service training has been expanding in New Hampshire. In 1968, 1294 firefighters were given instruction. In 1972, the number was up to 1,500 students participating in 94 different fire service training courses. In addition, general fire schools are presented each year with 600 men per session.

With the growing urbanization of New Hampshire, which is contributed to by the continuing movement of business and industry to suburban areas, there is an increase in hazardous air freight and highway and railroad cargoes due to expanding chemical and nuclear technology. More complex fire department organizational structures are needed. This has increased the demand for higher levels of performance at every rank. The jobs become highly technical and require more training. Most of our fire departments are still manned by volunteers. Therefore, the need for continuing training is critical.

g. Financing

3.0 *State Vocational Education Program.*

3.1 *Allocation of Funds to Part B Purposes.* The Chief of the Division shall be responsible for the development of the annual plan in allocating Federal, State and local funds among each of the population groups and categories of programs, services, and activities specified within the Plan. Such plans shall be developed under the advisement of the Advisory Council and approve by the State Board. Action shall be subject to the following criteria:

(1) The needs of all persons of all age groups in all communities of the State based on periodic evaluation of State and local vocational education programs may be served.

(2) The current and projected manpower needs and job opportunities as determined through cooperative efforts with other State agencies.

(3) The need for maintaining, extending and improving existing programs and developing new programs where there are sufficient numbers of persons to justify such training.

(4) The programs that are approved meet the minimum standards approved by the State Board.

(5) The programs are suited to the needs, abilities and interests of those the program is designed to serve.

Federal funds appropriated under section 102(a) of the Act and allotted to State for the purposes of part B may be used for vocational education programs, services and activities for the following groups of persons:

(1) Persons in high school.

(2) Persons who have completed or left high school and who are available for study in preparation for entering the labor market.

(3) Persons who have already entered the labor market and who need training or retraining to achieve stability or advancement in employment other than persons receiving training allowances under the Manpower Development and Training Act of 1962 (42 U.S.C. 2571–2628) or the Trade Expansion Act of 1962 (19 U.S.C. 1801–1991).

(4) Disadvantaged persons, and

(5) Handicapped persons.

3.11 *Percentage Requirements.*

(*a*) Allocation of Federal funds among local educational agencies shall comply with the following requirements with respect to the use of Federal funds:

(1) *Vocational education for disadvantaged persons.*—At least 15 percent of the total allotment for any fiscal year to a State of funds appropriated under section 102 (a) of the Act, or 25 percent of that portion of the State's allotment which is in excess of its base allotment, whichever is greater, shall be used only for vocational education for disadvantaged persons.

(2) *Postsecondary vocational education.*—At least 15 percent of the total allotment for any fiscal year to a State of funds appropriated under section 102 (a) of the Act, or 25 percent of that portion of the State's allotment which is in excess of its base allotment, whichever is greater, shall be used only for postsecondary vocational education.

(3) *Vocational education for handicapped persons.*—At least 10 percent of the total allotment for any fiscal year to a State of funds appropriated under section 102 (a) of the Act shall be used only for vocational education for handicapped persons.

3.12 *Identification of Disadvantaged Persons.* The State Board and local educational agencies shall identify disadvantaged persons per the criteria and definition described under the definition section of this Plan in cooperation with other Federal, State and local public and private agencies interested in such individuals. Disadvantaged persons shall be carefully identified in accordance with the criteria established in the definition by local and state school administrators who shall collectively and individually recruit these individuals for enrollment in vocational education programs which are or will be established to meet their needs.

Upon being notified of such persons, the school administration shall refer these individuals to the appropriate guidance personnel, vocational teacher or other agency who can best serve their needs. Administrators shall respond to requests of individual students and families for special assistance.

3.13 *Identification of Handicapped Persons.* The State Board and local educational agencies shall identify handicapped persons per the criteria and definition described under the definition section of this Plan. Further delineation shall be made by means of testing and other diagnostic techniques consistent with those used by State and private agencies having responsibility for the education and/or training of the handicapped, such as the Division of Vocational Rehabilitation and other special education interests of the State Department of Education and other agencies. Recruitment shall be as in 3.12.

3.14 *Manpower Needs and Job Opportunities.* Due consideration will be given to manpower needs and job opportunities as determined pursuant to this plan. The Division Chief through the advisement of the Advisory Council and Division Consultants shall carefully allocate funds to the various purposes in the annual plan in light of research studies conducted, and the manpower needs and job opportunities data presented by the Departments of Employment Security, Labor, Agriculture and other agencies having pertinent information.

3.15 *Vocational Education Needs of Groups to be Served.* Due consideration will be given to the vocational education needs of persons in high school, persons who have completed or left high school who require preparation for entering the labor market, persons already in the labor market who need training or retraining for employment, disadvantaged, and handicapped persons. The Division Chief through the advisement of the Advisory Council and the Division Consultants shall carefully allocate funds to the various groups to be served in light of the cost-benefit relations to be derived and number of individuals within each group to the extent that available funds shall permit and in compliance with percentages stated in 3.11 and pursuant to 3.11, 3.12, and 3.26.

3.2 *Allocation of Funds to Local Educational Agencies for Programs, Services, and Activities.*

3.21 *Local Applications.* Any school district or educational agency desiring to receive Federal funds to support vocational training pursuant to the Act shall submit an application at such time, in such detail, and containing such information as requested by the Division. Said application shall be prepared in consultation with the local instructors, directors and Advisory committees.

(*a*) Applications from local educational agencies shall include the following:

(1) A description of the proposed programs, services, and activities including evaluation activities for which funds are being requested.

(2) A justification of the amount of Federal funds requested and information on the amounts and sources of other funds available for the programs, services, and activities.

(3) Information indicating that the application has been developed in consultation with the educational and training resources available in the area to be served by the applicant local educational agency.

(4) Information indicating that the programs, services, and activities proposed in the application will make substantial progress toward preparing the persons to be served for a career.

(5) A plan, extending five years from the date of the application, for meeting the vocational education needs of potential students in the area or community to be served by the local educational agency, which plan shall be related to the comprehensive area manpower plan, if any, in that area, and

(6) Information indicating the means by which the programs, services, and activities proposed in the application will make substantial progress toward meeting the needs set forth in the application.

(7) Information indicating the construction needs to implement the programs and services outlined.

(*b*) The application shall also contain such other information as may be required by the State Board to determine whether the programs, services, and activities proposed therein will otherwise meet all other applicable requirements in the Act, and the State Plan.

3.22 *Procedures for Processing Applications for Vocational Programs, Services, and Activities.*

3.22–1 *Programs, Services and Activities Undertaken by the State Board:* The State Board shall, upon recommendation from the State Director of Vocational Education, either approve, disapprove, or defer proposals for programs, services and activities as submitted by state area vocational education schools and institutions.

3.22–2 *Program Services, and Activities Undertaken by Local Educational Agencies:* Local educational agencies may submit a proposal for programs, services, and activities for approval by the State Board, through the Director of Vocational Education. After reviewing the proposals submitted by local educational agencies, the State Director of Vocational Education will submit the proposals with recommendation to the State Board for approval, disapproval, or deferrral.

3.22–3 *Coordination with Other State Agencies:* Coordination and cooperation with all interested individuals and agencies shall be encouraged at all times to minimize duplication of effort and to strengthen vocational education in the State. The Division shall work closely with the Advisory Council, CAMPS, Special Education, Vocational Rehabilitation, ESEA Coordinators, Economic Opportunity Coordinator, Welfare agencies and other interested agencies whenever possible. Procedures followed in cooperating with other state agencies will be consistent with those previously outlined in this plan as indicated in section 1.7. Cooperative arrangements consist of personal consultation, and approval among the heads of the respective agencies.

3.23 *Procedures for Processing Local Application for Construction.*

3.23–1 *Projects Undertaken by the State Board:* Proposals for the construction, acquisition, expansion and alteration of technical and/or vocational school facilities to be sponsored by the State Board will be recommended by the State staff for vocational-technical education as a result of detailed study and analysis of the need and placement opportunity for employment in the occupations for which the training is provided. After approval by the State Board, the proposal must be approved by the General Court and appropriations made therefrom. The construction of all capital projects sponsored by any State agency (State Board) is under the immediate supervision of the Department of Public Works and Highways, Division of Public Works.

3.23–2 *Projects Undertaken by Local Educational Agencies:*

(*a*) *Application.*—A local educational agency desiring to apply for Federal funds for the construction of new facilities or remodel existing facilities for vocational instruction will submit to the State Board through the Chief of the Division of Vocational Education detailed plans and specifications showing such new or remodeled facilities together with estimated costs and justification for such facility based on the need for such an educational program. Evidence of detailed planning of curriculum, facilities and services in cooperation with a local Vocational Advisory Committee and the consultants of the State Department of Education must be presented.

(*b*) *Action by State Board.*—The State Board will through its professional staff review all recommendations relevant to each request from a local educational agency and take whatever action that is appropriate to the situation in the interest of providing training for the greatest number of persons according to the greatest need.

3.23–3 *Coordination with Other State Agencies:* Other state agencies concerned with the providing of vocational training or planning for such training will be consulted during the planning for or review of plans for vocational educational facilities. Heads of the following agencies shall be included: State Commissioner of Public Works and Highway; State Fire Marshal's Office; Regional Engineering Office, USOE; State Commissioner of Labor; and State Department of Education, Building and Facilities Consultant. Special consideration will be given contact with the Chief, Division of Vocational Rehabilitation who is concerned with the education of the handicapped and disadvantaged.

3.24 *Maintenance of Effort.*

(*a*) Federal funds made available under the Act will not supplant State or local funds, and will be so used as to supplement, and to the extent practical, increase the amount of State and local funds that would in the absence of such Federal funds be made available for the purpose set forth in the Act, so that all persons in all communities of the State will as soon as possible have ready access to vocational education suited to their needs, interests, and ability to benefit therefrom.

(*b*) No payment of Federal funds under the Act will be made in any fiscal year to any local educational agency unless the State Board finds that the combined fiscal effort of that agency and the State with respect to the provision of vocational education by that agency for the preceding fiscal year was not less than such combined fiscal effort for that purpose for the second preceding fiscal year. For the purpose of this paragraph, "combined fiscal effort" means total expenditures of State and local funds with respect to the provision of vocational education by the local educational agency. A combined fiscal effort in the preceding fiscal year shall not be deemed to be a reduction from that in a second preceding fiscal year unless the per student expenditures for vocational education and ancillary services and activities from State and local funds in the preceding fiscal year is less than that in the second preceding fiscal year by more than 5 percent. Any such reduction in combined fiscal effort for any fiscal year by more than 5 percent will disqualify a local educational agency unless the local educational agency is able to demonstrate to the satisfaction of the State Board that such a reduction was occasioned by unusual circumstances that could not have been fully anticipated or reasonably compensated for by the local educational agency and that the fiscal effort of the local educational agency does not otherwise indicate a diminished fiscal effort. Such unusual circumstances may include in the first preceding fiscal year unforeseen decrease in revenues due to the removal of a large segment of property from the tax rolls or other causes, or transfer to, or combination with, other local educational agencies of responsibility for the conduct of some or all vocational education activities or services; or, in the second preceding fiscal year, contributions of large sums of money from outside sources on a short-term basis, or unusually large amounts of funds expended for such long-term purposes as the construction and acquisition of school facilities or the acquisition of equipment. Nothing in this regulation shall prohibit the approval of fund expenditure when excessive reduction can be determined to be the result of outstanding business procedure and economical operation.

3.25 *Matching.*

3.25-1 *Overall State Matching:* The Federal share of expenditures shall not exceed 50 percent of State and local expenditures for State vocational education programs under part B of the Act, except that the Federal may be 100 percent for programs for the disadvantaged in areas of high concentration of youth unemployment and school dropouts under part B of the Act and financed with funds under section 102(b) of the Act. Federal funds will not be allocated in a manner which requires local educational agencies to match Federal funds at a percentage ratio uniform throughout the State. Funds under Part B of the Act will be allocated in a manner consistent with the criteria in 3.26.

3.25-2 *Reasonable Tax Effort:*

(*a*) In apportioning funds among local educational agencies, supported in whole or in part with local tax revenues, the State Board shall assure that no local educational agency which is making a reasonable tax effort, will be denied funds for establishing new vocational education programs solely because it is unable to pay the non-Federal share of the cost of such programs.

(*b*) For purposes of this section, the tax effort of a local educational agency shall be represented by the ratio between the total annual revenues available to the agency for educational purposes and the total taxable wealth of the local community served by the agency on the basis of the communities State Equalized Valuation compiled by the State Tax Commission. Equalized valuation is updated bi-annually.

(*c*) A local community's educational tax effort shall be considered reasonable whenever it is equal to or greater than the average local tax effort, based on the average local tax effort in the State.

3.26 *Criteria for Determining Relative Priority of Local Applications.*

3.26-1 *Manpower Needs and Job Opportunities:* In allocating funds among local educational agencies, the State Board will give due consideration to information regarding current and projected manpower needs and job opportunities. On-going, new and emerging needs and opportunities will be identified using the following methods:

(1) Local surveys shall be conducted.

(2) A five-year plan shall be developed indicating manpower needs, job opportunities, and vocational education needs of potential students.

(3) Evaluations of placement and follow-up of students shall be conducted by the local educational agency and submitted to the State Director. This data will provide a basis for program modification, expansion or eligibility for reimbursement purposes.

(4) Information received from the N. H. Employment Security Commission through its local offices will be analyzed and used in determining long-range and annual program goals.

(5) The Department of Resources and Economic Development and other state agencies will be consulted.

(6) Local and state leaders of Trade (occupational) organizations and labor unions will be consulted when program planning involves their interest.

Preference will be given those programs that will best meet the needs identified in 3.26–2.

3.26–2 *Vocational Education Needs:*

(*a*) In allocating funds among local educational agencies, the State Board shall give due consideration to the relative vocational education needs of all the population groups in all geographic areas and communities in the State, particularly disadvantaged and handicapped persons as described in 3.12 through 3.15.

(*b*) In weighing the relative vocational education needs of the State's various population groups, the State Board shall give particular consideration to additional financial burdens which may be placed upon certain local educational agencies by the necessity of providing vocational education students, particularly disadvantaged and handicapped students, with special education programs and services such as compensatory or bilingual education, which are not needed in areas or communities served by other local educational agenices in the State.

(*c*) *Consideration of criterion.*—Flexibility will be maintained to allow the Division to furnish greater percentages of total program costs than a 1 to 1 ratio to encourage greater participation by local communities in vocational training, especially where hardship cases exist and/or special education programs are involved. The State education foundation aid program shall be used as an indicator to establish Funding patterns. The Division Chief and the Consultants shall determine through careful study the best use to be made of vocational education funds.

(1) The State Board will identify the vocational education needs including the need for special education programs and services.

(2) Information obtained on vocational education needs in the long range program plan shall be used to maintain, improve and/or extend vocational education in the State.

(3) Information obtained as a result of periodic evaluations shall be used to make changes for more effective and efficient vocational education at the local and state levels.

(4) The RCU shall assist in obtaining and updating information for the Division as needs become established.

3.26–3 *Relative Ability to Provide Resources:* In allocating funds among local educational agencies supported in whole or in part with local tax revenues, the State Board shall give due consideration to their relative ability to provide the resources necessary to meet the vocational education needs in the areas or communities served by such agencies as determined in 3.25–2. Depressed and high unemployment areas, which shall receive priority, shall be determined by three factors: the relative ability of the area to provide resources, wealth of the area, and number of students to be served. The State Board will give due consideration to the criterion set forth below and update information annually.

(1) Cost-benefit analysis and the State Foundation Aid formula shall be considered.

(2) Information to be relied upon shall include population figures; geographical area; tax rates, local valuation, status of existing educational programs, services, and facilities; and local school and vocational enrollments.

(3) Sources of information shall come primarily from the Division of Administration, State Department of Education. This information shall be updated annually. Other sources include, local town and city officials, State Tax Commission, and local Superintendents of Schools.

3.26–4 *Relative Cost of Programs, Services and Activities:* In allocating funds among local educational agencies, the State Board shall give due consideration to the cost of the programs, services, and activities these local educational agencies provide which is in excess of the cost which may be normally attributed to the cost of education in such local educational agencies.

In determining the relative priority of local educational agencies in terms of costs of education, the State Board shall give primary consideration to:

(1) Differences in the cost to local educational agencies of materials and services such as construction or equipment costs or teachers' salaries, which are due to variations in price and wage levels or other economic conditions existing in the areas served by the local educational agencies; and

(2) Differences in the amount of excess costs accruing to local educational agencies because of the necessity of supplying special services other than those necessary to meet the special vocational education needs of certain population groups such as disadvantaged and handicapped persons, bus transportation for students or unusual and excessive maintenance costs for outdated buildings and facilities, which are not usually part of the cost of education provided by other local educational agencies in the State. Information will be secured from fiscal reports of local school districts which are made annually to the Division of Administration, State Department of Education.

3.26–5 *Other Criteria of the State:* The criteria listed in section 3.26–1 to 3.26–4 shall not prohibit the utilization of special criteria as the need arises to insure the provision of Vocational Education to all persons in all communities which may not meet these specific criteria. At present, no such criteria has been developed; therefore, subsequent information will be added as needed and placed in the Appendix of the plan.

3.27 *Application of Criteria in Determining the Relative Priority of Local Application.* The State of New Hampshire is a relatively small state with a close working relationship between the local vocational educator, local administrator and state staff. The State Board of Education on advice of the State Vocational Staff has approved a long-range plan for secondary local vocational education. Each staff member has considerable knowledge concerning every school and its potential for service. It must also be realized that approximately 90 percent of New Hampshire school costs are *borne* by the local school district. Thus *all* schools need some financial assistance. With these factors in mind the following procedures will be followed in developing local application priorities.

3.27–1 *Application Approval:* Unless a review of the application or other available data indicates that the school applying for funds is not part of the master plan for vocational education in New Hampshire, the application will be approved for consideration of funds. Order of priorities:

1. Designated Vocational Centers—new, ongoing, and expanded programs.
2. Presently supported programs in sending schools—ongoing and expanded.
3. Innovative programs which might serve as models—any school or agency.

3.27–2 *Priority for Funds:* A committee of vocational education consultants will review the approved applications and assign a point value to each application. The school with the highest rating will be assigned the highest rate of reimbursement with the lowest rating receiving the lowest reimbursement rate. A minimum reimbursement rate will be assigned all applications with the aforementioned variable rates being added. The funds will be allocated on the basis of the allocation formula.

3.27–3 *Priority Rating Factors:* The following rating system is based on the factors of Manpower needs, Vocational Education needs, school districts ability to pay, and excess costs. In considering each of these factors, evidence will be secured from other agencies such as the Department of Employment Security, Vocational Rehabilitation, CAMPS, State Tax Commission, other Department of Education Divisions, and any other appropriate source. The review committee referred to in 3.27–2 will consider evidence provided in determining the specific point value to be assigned each item outlined in 3.27–3

(I)-(IV). It should be noted that because New Hampshire is a small state the review committee will be composed of individuals who are personally aware of each school's organizational structure, needs, and abilities. They will, therefore, be able to objectively analyze each school's application against the yardstick of data provided by the agencies listed above.

After all applications have been scored, the total points will be added and divided into the total allocation for percentage distribution. For example, let us assume that 20 applications total 1500 points. This will provide for $150 per point if the total allocation is $225,000. If Community A received 60 points, it would receive $9,000, Community B with 90 points, would recieve $13,500 because of their rating. In no case would an application be approved for more than 100% of its request.

The foregoing example shows the consideration that will be given an application for funds to be utilized in a secondary school program.

[The total number of points: 100. Scale to be used: (High) 5-4-3-2-1 (Low).]

I. Manpower needs and job opportunities—10 pts.—weight 2.
a. Current job needs in area and state.
b. Projected job needs in area and state.
II. Overall vocational education needs—60 pts.
a. Number of students served—20 pts.—weight 4.
1. Number of occupational fields offered.
2. Number of programs provided.
3. Areas vocational center.
4. Number of area students served.
b. Services and programs for all persons—20 pts.—weight 4.
1. Regular students.
2. Disadvantaged students.
3. Handicapped students.
4. Dropouts.
5. Adults.
6. Youth organizations.
c. Quality of offerings proposed—20 pts.—weight 4.
1. Program.
2. Facilities and resources.
3. Personnel.
III. Relative ability to pay—20 pts.—weight 4.
a. Equalized valuation per district.
b. Depressed area.
c. Unemployment rate.
IV. Excess cost—10 pts.—weight 2.
a. Excessive construction and wage costs.
b. Excessive costs for equipment and supplies.
c. Excessive transportation costs.
1. Consolidated school district.
2. Area vocational students.

(ii) We do not have any cities with a population of 250,000 or over, however, to give you a picture of the way our funds are allocated, the following attachments are enclosed.

Attachment 2 is a summary of the allocation of funds to specific schools giving a breakdown of the points determination.

Attachment 3 is data concerning financial situation of each of the school districts, which was used in determining the points.

Attachment 4 is a budget summary of Federal funds.

Attachment 5. Attached is a copy of our Federal funds financial statement for 1972, page 3 of which indicates expenditures by SMSA, Federal, State, and local breakdowns.

FINAL SUMMARY ON POINTS

	Manpower Needs (10 pts)	Ability to Pay (20 pts)	Students Served (20 pts)	Progs. & Services for all (20 pts)	Quality of Programs (20 pts)	Change & Growth (10 pts)	Grand Total	Rank Order	# Reg. Programs	Final Points	Points X $17 per point	Rounded Allocation	Local Directors
Berlin	6	15	16	14	16	5	72	2	10	720	$12,240	$12,200	$5,500
Claremont	8	15	15	12	12	5	67	5	6	402	6,834	6,800	5.500
Colebrook	6	20	9	17	20	7	79	1	2	158	2,686	2,700	5,500
Concord	7	11	13	6	8	6	51	18	4	204	3,468	3,400	7,000
Conway	10	14	9	9	12	4	58	12	2	116	1,972	2,000	5,500
Derry	5	15	3	10	12	8	53	16	2	106	1,802	1,800	
Dover	5	14	18	11	12	6	66	6	16	1,056	17,952	17,900	5,500
Exeter	8	11	12	10	12	5	58	12	4	232	3,944	3,900	5,500
Franklin	10	13	3	10	12	2	50	19	1	50	850	600	
Groveton	10	18	3	16	20	4	71	3	1	71	1,207	1,200	
Hudson	7	13	11	12	12	4	59	11	5	295	5,015	5,000	
Keene	7	13	15	9	16	4	64	7	10	640	10,880	10,800	5,500
Langdon	5	17	7	11	16	4	60	10	4	240	4,080	4,000	
Lebanon	5	15	11	8	12	6	57	13	4	228	3,876	3,800	5,500
Linwood	10	11	3	12	20	1	57	12	1	57	969	1,000	
Marchester	7	9	21	8	4	6	55	15	19	1,045	17,765	17,700	5,500
Merrimack	10	13	3	11	20	4	61	9	1	61	1,037	1,000	
Milford	7	15	15	11	16	4	68	4	8	544	9,248	9,200	5,500
Nashua	6	11	18	8	12	5	60	9	12	720	12,240	12,200	5,500
Newport	8	14	7	9	16	4	58	12	6	348	5,916	5,900	
Northwood	6	13	4	13	8	5	49	19	2	98	1,666	1,600	
Penacook	10	14	6	14	16	5	65	7	3	195	3,315	3,300	
Peterborough	7	10	12	7	8	3	47	21	6	282	4,794	4,800	5,500
Plymouth	10	13	3	6	12	4	48	20	2	96	1,632	1,600	10,000
Portsmouth	9	12	13	7	12	4	57	13	6	342	5,814	5,800	5,500
Salem	5	13	14	10	16	5	63	8	8	504	8,568	8,500	5,500
Somersworth	6	13	15	11	16	5	66	6	8	528	8,976	8,900	7,000
White Mts SU35	6	16	15	13	12	5	67	5	8	536	9,112	9,100	5,500
Littleton	10	13	9	8	12	4	56	14	2	112	1,904	1,900	
Swanzey	7	16	4	6	16	3	52	17	2	104	1,768	1,700	
Tilton	6	13	6	15	16	4	60	10	2	120	2,040	2,000	
Wolfeboro	9	11	13	9	12	6	60	10	4	240	4,080	4,000	7,000
Woodsville	10	14	3	8	12	2	49	19	1	49	833	800	10,000 (Laconia)
							1963		172	10499	$178,483	$177,100	$123,500

ATTACHMENT 2

ATTACHMENT 3

DATA

School District	% of students to 4-yr college	% of students to all postsecondary	County: % of families earning under $4,000	% of famil'es earning under $4,000	Unem-ployment Rate	Depressed Area	Equalized Valuation per pupil	School Tax % of Total Tax
Berlin	25.7	50.2	.49	17.3	6.0	*	43,087	49.0
Claremont	33.2	63.2	.33	12.9	4.9		29,071	63.7
Colebrook	14.5	37.9	.49	16.3	6.0	*	26,410	85.26
Concord	38.4	57.1	.21	10.1	3.3		36,506	60.0
Conway	31.4	57.5	.45	11.8	5.3-6.0	*	55.389	69.38
Derry	33.3	53.1	.20	11.8	3.9-4.9		26,976	68.3
Dover	30.1	53.1	.25	9.2	4.5		28,231	59.5
Exeter	31.7	54.9	.20	10.7	3.7		34,729	57.5
Franklin	23.9	50.3	.21	13.2	3.2-3.3		30,649	67.0
Groveton	17.0	55.3	.49	12.5	6.0	*	37,616	73.0
Hudson	28.5	64.5	.18	5.0	4.9		26,199	68.0
Keene	33.0	53.9	.23	10.4	4.8		41,729	67.0
Langdon	30.3	54.9	.23-.33	14.3	4.8-4.9		29,187	80.7
Lebanon	36.5	53.2	.30	12.2	4.9-5.3	*	38,658	68.5
Linwood	21.9	51.1	.30	9.6	5.3	*	56,808	48.0
Manchester	35.0	49.2	.18	11.7	3.9		43,433	42.0
Merrimack	26.8	42.4	.18	4.3	3.9-4.9		28,835	70.66
Milford	32.1	55.3	.18	9.9	3.9-4.9		30,474	73.0
Nashua	35.5	52.8	.18	8.4	4.9		45,549	60.0
Newport	31.2	54.7	.33	10.9	4.9		29,199	62.7
Northwood	20.6	33.3	.20	14.5	3.3-3.9		45,308	83.2
Penacook	18.6	38.6	.21	12.9	3.3		21,157	65.5
Peterborough	37.7	59.5	.18	7.1	4.8-4.9		62,284	67.5
Plymouth	30.8	49.5	.30	15.3	3.2		35,684	63.1
Portsmouth	38.9	58.2	.20	12.5	3.7		28,988	54.4
Salem	25.8	50.1	.20	5.9	4.9		32,127	66.97
Somersworth	25.4	45.6	.25	11.8	4.5		32,108	59.22
White Mts. SU#35	28.3	53.8	.49	12.2	5.3	*	30,098	69.3
Littleton	34.3	53.8	.30	15.8	5.3	*	65,688	57.1
Swanzey	29.7	54.6	.23	16.0	3.5		28,320	80.0
Tilton	23.5	49.3	.27	14.3	3.2		30,731	66.9
Wolfeboro	29.7	55.6	.45	17.2	3.2		103,395	66.0
Woodsville	29.4	58.8	.30	13.7	5.3	*	27,768	47.0

ATTACHMENT 4

B U D G E T S - S U M M A R Y (FY 74)

	Trades & Industry	D.E.	Ag.	Health	B. & O.*	HERO	TOTALS	Special Services	TOTAL
Requested Funding									
Basic Cost	$1,224,986	$209,067	$328,993	$47,003	$405,085	$227,010	$2,442,144	$316,109	$2,758,253
Coop Ed	138,327	159,059	31,115	1,350	104,386	9,500	443,737		443,737
D. & H.	8,550	36,036	35,109	____	13,998	8,868	102,561	____	102,561
TOTALS	$1,371,863	$404,162	$395,217	$48,353	$523,469	$245,378	$2,988,442	$316,109	$3,304,551
Adjusted Funding									
Basic Cost	$ 956,400	$161,500	$306,550	$35,200	$494,825	$175,325	$2,129,800	$249,750	$2,379,550
Coop Ed	71,000	28,000	22,200		76,300	7,000	204,500		204,500
D. & H.	8,450	10,000	15,100	____	13,700	5,500	52,750	____	52,750
TOTALS	$1,035,850	$199,500	$343,850	$35,200	$584,825	$187,825	$2,387,050	$249,750	$2,636,800

* For total B. & O. programs 9-12, using 1/4 of cost for Voc. Office
reduced amounts to ($405,085 - requested --- All schools did not include
$494,825 - adjusted total costs, thus adjustments made.
Reason for higher adjusted costs
then requested amounts.

ATTACHMENT 5

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

FINANCIAL STATEMENT AND ADJUSTMENTS OF FEDERAL FUNDS FOR VOCATIONAL EDUCATION

(Vocational Education Amendments of 1968, P.L. 90-576)

READ INSTRUCTIONS ON REVERSE BEFORE COMPLETING THIS FORM

O.M.B. NO. 51-R0841
APPROVAL EXPIRES 3/31/73

STATE/OUTLYING AREA: NEW HAMPSHIRE

FISCAL YEAR ENDING: June 30, 1972

REPORT DUE: October 1, 19

SECTION I - CURRENT YEAR FINANCIAL STATEMENT OF FEDERAL FUNDS

PROGRAM (a)	UNOBLIGATED FEDERAL ALLOTMENTS BROUGHT FORWARD FROM PREVIOUS FY (b)	CURRENT YEAR FEDERAL ALLOTMENT (c)	TRANSFERS IN FEDERAL ALLOTMENT (d)	FEDERAL FUNDS AVAILABLE FOR EXPENDITURE (e)	FEDERAL FUNDS EXPENDED DURING YEAR		UNOBLIGATED CURRENT YEAR FEDERAL ALLOTMENTS CARRIED FORWARD TO NEXT YEAR (h)
					PREVIOUS FY FUNDS (f)	CURRENT FY FUNDS (g)	
1. VOCATIONAL EDUCATION ACT OF 1963 AS AMENDED TOTAL**	$ 716,043	$ 1,879,135	$ ---	$ 2,595,178	$ 712,140	$ 974,233	$ 904,902
2. PART A SECTION 102(b) DISADVANTAGED	68,817	69,397	---	138,214	68,817	5,514	63,883
3. PART B SECTION 102(a) STATE PROGRAMS**	297,204	1,332,469	---	1,629,673	297,204	832,783	499,686
a. POSTSECONDARY					15,972	136,498	
b. DISADVANTAGED					133,942	175,754	
c. HANDICAPPED					88,152	41,694	
4. PART C RESEARCH *(State)*	50,199	31,243	---	81,442	46,296	6,775	24,468
5. PART D EXEMPLARY *(State)*	95,060	108,801	---	203,861	95,060	11,136	97,665
6. PART F CONSUMER AND HOMEMAKING	36,508	88,934	---	125,442	36,508	39,148	49,78
a. DEPRESSED AREAS					14,828	13,222	
7. PART G COOPERATIVE	157,605	228,834	---	386,439	157,605	60,949	167,885
8. PART H WORK-STUDY	10,650	19,457	---	30,107	10,650	17,928	1,529

SECTION II - ADJUSTMENTS TO PRIOR YEAR EXPENDITURE REPORTS

FISCAL YEAR	COMMON ACCOUNT NUMBER	FEDERAL EXPENDITURES PREVIOUSLY REPORTED	INCREASE (+) OR DECREASE (-)	FEDERAL EXPENDITURES AS REVISED
1. 19	**12011300	813,462	(3,095.60)	810,366
2. 19				
3. 19				
4. 19				

The expenditures of Federal funds reported above have been in accordance with the provisions of the Federal Vocational Education Acts, the policies approved thereunder and the State plan. An exact copy of the complete report has been filed with permanent records of the State Board for Vocational Education.

SIGNATURE *(State Agency Fiscal Officer)*	TITLE Business Administrator New Hampshire State Department of Education	DATE October 12, 1972
SIGNATURE OF EXECUTIVE OFFICER *(State Board for Vocational Education)* Newell J. Paire	Commissioner of State Department of Education	DATE OF CERTIFICATION October 17, 1972

OE FORM 3129, 5/71

REPLACES OE FORM 3129, 6/70 WHICH IS OBSOLETE

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

EXPENDITURES FOR VOCATIONAL EDUCATION BY SOURCE, PURPOSE, AND LEVEL

READ INSTRUCTIONS ON REVERSE BEFORE COMPLETING THIS FORM

O.M.B. NO. 51-R0841, APPROVAL EXPIRES MARCH 31, 1973

STATE/OUTLYING AREA: NEW HAMPSHIRE

DATE PREPARED: 10/12/72

FISCAL YEAR ENDING: June 30,1972

REPORT DUE: October 1, 1972

PROGRAM	TOTAL FEDERAL (Total Dollars)	TOTAL STATE/LOCAL (Total Dollars)	SECONDARY (In Thousands)		POSTSECONDARY (In Thousands)		ADULT (In Thousands)	
			FEDERAL	STATE/LOCAL	FEDERAL	STATE/LOCAL	FEDERAL	STATE/LOCAL
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1. TOTAL, ALL PARTS	1,686,373	5,806,300	1,276	3,240	157	2,454	253	113
2. PART A 102(b) - DISADVANTAGED	74,331	---	74	---	---	---	---	---
3. PART B 102(a) - STATE PROGRAMS TOTAL	1,129,987	3,757,775	745	1,202	152	2,453	233	103
4. (1) SECONDARY	316,771	671,302	317	672				
5. (2) POSTSECONDARY	152,470	2,452,803			152	2,453		
6. (3) ADULT	221,204	103,157					221	103
7. (4) (a) DISADVANTAGED	309,696	329,410	304	329	---	---	6	---
8. (b) HANDICAPPED	129,846	201,103	124	201	---	---	6	---
9. (5) CONSTRUCTION	---	---	---	---	---	---	---	---
10. (6) GUIDANCE AND COUNSELING	(4,635)	(4,509)	(---)	(---)	(---)	(---)	(5)	(5)
11. (7) CONTRACTED INSTRUCTION	(---)	(---)	(---)	(---)	(---)	(---)	(---)	(---)
12. (8) ANCILLARY SERVICES	(169,651)	(69,490)	(---)	(---)	(---)	(---)	(170)	(69)
13. PART C - RESEARCH (State) TOTAL	53,071	62,143	41	59	5	1	7	2
14. (1) RESEARCH COORDINATION UNIT	6,566	2,189						
15. (2) GRANTS: NEW PROJECTS (No. 12)	45,012	58,454						
16. (3) CONT. PROJECTS (No. 1)	1,493	1,500						
17. PART D - EXEMPLARY (State) TOTAL	106,196	89,501	99	88	---	---	7	2
18. (1) DISADVANTAGED	(6,040)	(11,150)						
19. (2) HANDICAPPED	(4,563)	(10,151)						
20. (3) NEW PROJECTS (No. 4)	74,903	34,675						
21. (4) CONTINUING PROJECTS (No. 3)	23,174	51,000						
22. PART F - CONSUMER AND HOMEMAKING TOTAL	75,656	1,889,738	70	1,884	---	---	6	6
23. (1) DEPRESSED AREAS	(28,050)	(258,314)	(28)	(258)	(---)	(---)	(---)	(---)
24. (2) DISADVANTAGED	(28,050)	(258,314)	(28)	(258)	(---)	(---)	(---)	(---)
25. (3) HANDICAPPED	(---)	(---)	(---)	(---)	(---)	(---)	(---)	(---)
26. PART G - COOPERATIVE TOTAL	218,554	---	218	---	---	---		
27. (1) EMPLOYER REIMBURSEMENT	(---)	(---)	(---)	(---)	(---)	(---)		
28. (2) DISADVANTAGED	(140,515)	(---)	(141)	(---)	(---)	(---)		
29. (3) HANDICAPPED	(---)	(---)	(---)	(---)	(---)	(---)		
30. PART H - WORK STUDY TOTAL	28,578	7,144	29	7	---	---		
31. (1) ADMINISTRATION	---	---	---	---	---	---		
32. (2) STUDENT COMPENSATION	28,578	7,144	29	7	---	---		
33. (a) DISADVANTAGED	(28,578)	(7,144)	(29)	(7)	(---)	(---)		
34. (b) HANDICAPPED	(---)	(---)	(---)	(---)	(---)	(---)		

OE FORM 3131, 5/71 REPLACES OE FORM 3131, 6/70, WHICH IS OBSOLETE

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE OFFICE OF EDUCATION WASHINGTON, D.C. 20202 **TOTAL EXPENDITURES FOR VOCATIONAL EDUCATION BY OBJECT, PURPOSE, AND LOCATION** *(Vocational Education Amendments of 1968, P.L. 90-576)*	READ INSTRUCTIONS BEFORE COMPLETING THIS FORM	O.M.B. NO. 51-R0841 APPROVAL EXPIRES 3/31/73 STATE/OUTLYING AREA: NEW HAMPSHIRE DATE PREPARED: 10/12/72 FISCAL YEAR ENDING: 6/30/72 REPORT DUE: 10/1/72

SECTION I - EXPENDITURES BY TYPE OF POSTSECONDARY INSTITUTION

TYPE OF INSTITUTION (a)	TOTAL (b)	FEDERAL (c)	STATE AND LOCAL (d)
1. TOTAL	2,672,113	219,310	2,452,803
2. COMMUNITY COLLEGES	-----	-----	----
3. TECHNICAL INSTITUTES	697,010	11,413	685,597
4. VOCATIONAL, TECHNICAL, OTHER	1,975,103	207,897	1,767,206

SECTION II - EXPENDITURES BY LOCATION

EXPENDITURES BY LOCATION (a)	TOTAL (b)	FEDERAL (c)	STATE AND LOCAL (d)	ECONOMICALLY DEPRESSED AREAS FEDERAL (e)	ECONOMICALLY DEPRESSED AREAS STATE & LOCAL (f)
1. TOTAL (Sum of lines 2 and 4)	7,492,673	1,686,373	5,806,300	310,401	401,054
2. SMSA	514,295	175,816	338,479	----	----
3. CENTRAL CITY	465,848	129,670	336,178	----	----
4. NON-SMSA	6,978,378	1,510,557	5,467,821	310,401	401,054

SECTION III - EXPENDITURES BY LEGISLATIVE PURPOSE

LEGISLATIVE PURPOSES (a)		INSTRUCTIONAL COSTS			GUIDANCE AND COUNSELING (e)	ANCILLARY SERVICES			
		INSTRUCTIONAL SALARIES (b)	INSTRUCTIONAL EQUIPMENT (c)	OTHER INSTRUCTIONAL COSTS (d)		ADMINISTRATION, SUPERVISION, AND EVALUATION (f)	TEACHER EDUCATION (g)	RESEARCH AND DEMONSTRATION (h)	CURRICULUM DEVELOPMENT (i)
1. PART A 102(b) DISADVANTAGED		48,316	5,946	17,096	2,230	---	743	---	---
2. PART B 102(a) STATE PROGRAMS	TOTAL	2,261,643	520,637	268,138	4,635	1,728,705	54,600	---	49,404
3. SECONDARY		197,619	237,138	79,046	---	424,870	---	---	49,404
4. POSTSECONDARY		1,493,255	108,536	5,895	---	985,117	12,470	---	---
5. ADULT		25,667	---	463	4,635	273,332	20,264	---	---
6. DISADVANTAGED		295,901	151,466	128,458	---	45,386	17,895	---	---
7. HANDICAPPED		249,205	23,497	54,276	---	---	3,971	---	---
8. PART C - RESEARCH RCU		---	---	---	---	8,755	---	---	---
9. GRANTS		---	---	---	---	---	---	106,459	---
10. PART D - EXEMPLARY		---	---	---	---	7,765	---	187,932	---
11. PART F - CONSUMER AND HOMEMAKING	TOTAL	1,905,626	40,854	18,914	---	---	---	---	---
12. DEPRESSED AREAS		260,168	15,064	6,257	---	---	---	---	---
13. PART G - COOPERATIVE		41,526	87,421	39,340	---	48,082	2,185	---	---

OE FORM 3132, 5/71

REPLACES OE FORM 3132, 6/70, WHICH IS OBSOLETE

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

PROJECT EXPENDITURES FOR VOCATIONAL AREA SCHOOL CONSTRUCTION
(Including residential schools)
VOCATIONAL EDUCATION AMENDMENTS OF 1968, APPALACHIA, AND EDA
(P.L. 90-576)

READ INSTRUCTIONS ON REVERSE BEFORE COMPLETING THIS FORM

O.M.B. NO. 51-R0841
APPROVAL EXPIRES 3/31/7

STATE/OUTLYING AREA NEW HAMPSHIRE

DATE PREPARED October 12, 1972

FISCAL YEAR ENDING June 30,1972

REPORT D October 1

	PROGRAM (a)	FEDERAL EXPENDITURES BY PUBLIC LAW (b)		STATE AND LOCAL EXPENDITURES (c)	NUMBER OF PROJECTS		ADDITIONAL STUDENT CAPACITY	
					NEW (d)	EXPANSION & REMODELING (e)	NEW PROJECTS (f)	EXPANSION & REMODELING (g)
1.	TOTAL ALL PROJECTS	VEA 68	N/A	N/A				
2.		211						
3.		214						
4.		EDA						
5.	TOTAL PROJECTS THROUGH ACQUISITION OF EXISTING FACILITY	VEA 68						
6.		211						
7.		214						
8.		EDA						
If Construction Funds from 211, 214 or EDA are shown on Lines 2, 3, 4, 7 or 8 list projects individually below.								
9.		VEA 68						
10.		211						
11.		214						
12.		EDA						
13.		VEA 68						
14.		211						
15.		214						
16.		EDA						
17.		VEA 68						
18.		211						
19.		214						
20.		EDA						
21.		VEA 68						
22.		211						
23.		214						
24.		EDA						
25.		VEA 68						
26.		211						
27.		214						
28.		EDA						

OE FORM 3133, 5/71 REPLACES OE FORM 3133, 6/70, WHICH IS OBSOLETE

h. Construction and Equipment

Attachment 10 consists of the construction reports for Federal report purposes, which gives a breakout of Federal, State, and local sources.

Also included in this attachment is our State plan construction projections.

At this time our greatest progress has been accomplished at the postsecondary level with the creation of seven facilities dispersed throughout the State.

Our latest efforts to legislatively mandate the creation of 20 area vocational centers at the secondary level, has just passed our State House and Senate and awaits the Governor's signature to become law. Should this occur, $3.5 million will be available during the next biennium to construct two or three new area centers.

ATTACHMENT 10

OE 4270 (REV. 2/67)

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

BUDGET BUREAU NO. 51-R0619
APPROVAL EXPIRES 6/30/69

STATE TERRITORY: **New Hampshire**

DATE PREPARED: **February 19, 1969**

FISCAL YEAR ENDING: JUNE 30, 19**68**

PROJECT STATUS AND EXPENDITURES OF VOCATIONAL AREA SCHOOL CONSTRUCTION

Vocational Education Act of 1963

Read INSTRUCTIONS on reverse before completing this report.

NUMBER & NAME OF PROJECT (Indicate if building(s) in project is fully air conditioned by putting AC in parenthesis after name of project below, or PAC for partially conditioned.)	TYPE OF SCHOOL (Use code on reverse)	TYPE OF CONSTRUC. (Use code on reverse)	ESTIMATED STUDENT CAPACITY OF FACILITY FOR EACH VOCATIONAL PROGRAM (Give new and/or existing capacity for each program) (New, Exist.)	AGRI-CULTURE	DISTRI-BUTION	HEALTH	HOME ECONOMICS	OFFICE	TECHNICAL	TRADES AND INDUSTRY	TOTAL SQUARE FEET IN PROJECT (00)	NUMBER OF CLASSROOMS & LABS OR SHOPS IN PROJECT & SQUARE FOOTAGE IN(00): CLASS ROOMS	LAB OR SHOPS	APPROXIMATE COST OF INITIAL EQUIPMENT IN PROJECT	FUNDS EXPENDED FOR PROJECT (Round to nearest dollar): TOTAL (Cols. 17, 18 and 19)	FEDERAL (PL 88-210)	STATE	LOCAL	ACR PLC
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1 TOTAL			N								14,326	1	10	$100,000	319,000	129,000	0	190,000	
			E									680 SQ FT	13,646 SQ FT						
2 Conval Regional High School		N	N				2	5		4	14,326 sq.ft.	1	10	$100,000	319,000	129,000*	0	190,000	
			E				3,628	4,308		5,710		680	13,646						
3			N																
			E																
4			N																
			E																
5			N																
			E																
6			N																
			E																

* Total federal funds approved for construction, $188,375.00. Total amount paid in FY 1967-68 is $129,000.00
The balance is to be paid in fiscal 1969.

ATTACHMENT 10

OE FORM 4220, 2-69 DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON D.C. 20202

BUDGET BUREAU NO. [illegible]
APPROVAL EXPIRES [illegible]

STATE TERRITORY: New Hampshire
DATE PREPARED: October 13, 1969
FISCAL YEAR ENDING: JUNE 30, 19 69

PROJECT STATUS AND EXPENDITURES OF VOCATIONAL AREA SCHOOL CONSTRUCTION

Vocational Education Act of 1963

Read INSTRUCTIONS on reverse before completing this report.

	NUMBER & NAME OF PROJECT (Indicate if building(s) in project is fully air-conditioned by putting AC in parenthesis after name of project below or PAC for partially air-conditioned.) 1	TYPE OF SCHOOL (Use code on reverse) 2	TYPE OF CONSTRUC. (Use code on reverse) 3	(New Exist.) 4	ESTIMATED STUDENT CAPACITY OF FACILITY FOR EACH VOCATIONAL PROGRAM (Give new and or existing capacity for each program) AGRICULTURE 5	DISTRIBUTION 6	HEALTH 7	HOME ECONOMICS 8	OFFICE 9	TECHNICAL 10	TRADES AND INDUSTRY 11	TOTAL SQUARE FEET IN PROJECT (00) 12	NUMBER OF CLASSROOMS & LABS OR SHOPS IN PROJECT & SQUARE FOOTAGE IN (00) CLASSROOMS 13	LAB OR SHOPS 14	APPROXIMATE COST OF INITIAL EQUIPMENT IN PROJECT 15	FUNDS EXPENDED FOR PROJECT (Round to nearest dollar) TOTAL (Cols. 17, 18 and 19) 16	FEDERAL (PL 88-210) 17	STATE 18	LOCAL 19
1	TOTAL			N												3,200,495	248,091	2,197,404	755,000
				E									SQ FT	SQ FT					
2	N. H. Voc. Tech. College Nashua, N. H.	C	H	N		40			80		80	47,000		-	600,000	2,267,500	90,000	2,177,500	-
				E															
3	Conval Peterborough/ N.H.	B	H	N				140	175		125	14.326 sq.ft.	1	10	100,000	349,375	109,375	-	240,000
				E									680	13,646					
4	N.H. Voc. Tech. Coll. (sewer) Laconia, N. H.	C	G	N			N.	A.					-	-	-	31,226	15,219	16,007	-
				E															
5	Portsmouth Storage area for Welding Gas tanks	C		N			N.	A.					-	-	-	7,794	3,897	3,897	-
				E			N.	A.											
6	Salem High School	B	F	N		30					250	22,202 sq.ft.		I	70,000	544,600	29,600*		515,000
				E															

* Part payment of an allocation of $385,000. Total project approx. $900,000

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

PROJECT EXPENDITURES FOR VOCATIONAL AREA SCHOOL CONSTRUCTION

(Including residential schools)

VOCATIONAL EDUCATION AMENDMENTS OF 1968, APPALACHIA, AND EDA

Read instructions on reverse before compl[illegible]m

BUDGET BUREAU NO. [illegible]
APPROVAL EXPIRES [illegible]

STATE/OUTLYING AREA: New Hampshire

DATE PREPARED: January 6, 1971

FISCAL YEAR ENDING: June 30, 19

REPORT DUE: October 1, 1970

	PROGRAM 1	FEDERAL EXPENDITURES BY PUBLIC LAW 2		STATE AND LOCAL EXPENDITURES 3	NUMBER OF PROJECTS: NEW 4	NUMBER OF PROJECTS: EXPANSION & REMODELING 5	ADDITIONAL STUDENT CAPACITY: NEW PROJECTS 6	ADDITIONAL STUDENT CAPACITY: EXPANSION & REMODELING 7
1.	TOTAL ALL PROJECTS	VEA 68	140,000 *	515,000	1		80	
2.		211						
3.		214						
4.		EDA						
5.	TOTAL PROJECTS THROUGH ACQUISITION OF EXISTING FACILITY	VEA 68				▨		▨
6.		211						
7.		214						
8.		EDA						
	If Construction Funds from 211, 214 or EDA are shown on Lines 2, 3, 4, 7 or 8 list projects individually below.							
9.		VEA 68						
10.		211						
11.		214						
12.		EDA						
13.		VEA 68						
14.		211						
15.		214						
16.		EDA						
17.		VEA 68						
18.		211						
19.		214						
20.		EDA						
21.		VEA 68						
22.		211						
23.		214						
24.		EDA						
25.		VEA 68						
26.		211						
27.		214						
28.		EDA						

OE FORM 3133, 6/70 — REPLACES OE FORM 4220, 2/69, WHICH IS OBSOLETE

* Part payment of total allocation of $385,000

Table 7

Construction Projects on Which Construction Will Start in Coming Year*

Name and Address County and Cong. District	Estimated Beginning Construction Date (Month - Year)	Estimated Completion Date (Month - Year)	Building Capacity 1/
N. H. V. T. C., Berlin, Coos County District 2	7/74	7/75	125
N. H. V. T. C., Claremont, Sullivan County District 2	7/74	7/75	100
N. H. V. T. C., Nashua, Hillsborough County District 2	7/74	7/75	75

*Report all construction projects regardless of funding source.

1/ Vocational student capacity at any one time.

Project the Number of Construction Projects Needed Each Year for the Next Five Years

Year	Number Projects	Total Building Capacity
1974	3	300
1975	0	-0-
1976	7	800
1977	0	-0-
1978	10	1,200

a. Exemplary programs and projects.

The funds available to us in this category from both the Commissioner's and the State's half have made it possible to establish:

(1) 4 Career Education sites serving students K–12 throughout the State and develop more limited programs in four additional districts which will be serving about 4,500 students next year. These programs will continue when Federal funds are no longer available.

(2) An environmental sciences program, 9–12, equipping students with job-entry skills for ecology-related positions.

(3) A model for core-centered curricula focussed on distributive education geared to the needs of the disadvantaged and handicapped at the secondary level.

(4) A State model for an integrated drafting and machine shop program interacting with the science and English departments.

(5) An occupational information system providing students with data on jobs available in New Hampshire which is now installed in 50 high schools.

(6) A prenursing remediation program for students who ordinarily do not succeed in regular programs and who have all graduated and been licensed after exposure to this program.

The most important outcome of the use of these funds has been that of establishing model sites throughout the State characterized by student-based performance outcomes, flexibility in scheduling, and programing, and individualizing to meet student's needs. These sites are being visited by teachers from other schools who are then using the ideas they are exposed to in their own programs.

New Hampshire exemplary programs vocational-technical education, fiscal year 1973, career education programs

Title	*Location*
Planning for Career Education in the Concord Schools Dave Morin, Project Manager. This program will eventually serve 5,200 students when completely implemented.	Concord.
A Career Education Program for the Somersworth Schools Jim Carroll, Project Manager. This is a Career Education program K–12 to include a guidance and placement component and which will eventually be serving 500 students and will expand to all the students in that district at the end of three years.	Somersworth.
Exploring the World of Work—Paul Smith School Robert Ross, Project Manager. This is an elementary school testing for Career Education Guidelines of the State of New Hampshire, and it involves five teachers and 120 students.	Franklin.
Grade Five Career Education Program—Governor Wentworth School District David Johnston, Project Manager. This is a second site field testing the Career Education Guidelines for the State. It involves five teachers and 130 students.	Wolfeboro.
Careers Concepts Urban Applications Chris Kehas, Project Manager. This program is also testing the New Hampshire Guidelines for Career Education and is stressing the use of counselors in the development of Career Education programs. It involves nine staff members and 300 students.	Manchester.

Title	*Location*
Career Education: Field Testing the N.H. Guidelines Robert Wilkins, Project Manager. This is the fourth site testing the N.H. Guidelines and is the most comprehensive of the testing sites. It involves 31 teachers and 775 students.	Newport.
Vocational-technical education, fiscal year 1971, Continuing Commitments	
70-01 N.H. Occupational Information Improvement Project (2d year of 3-year project). Earle Wingate, Director. This is a project to improve the use of occupational information in New Hampshire.	Concord.
70-03 Model Machine Shop for Drafting Instruction Carl Jackson, Director. To develop a vocational drafting program with individualized instruction in skills directly related to the draftsman so that the student upon graduation has job entry level skills.	White Mtns. Regional High School.
70-04 Prenursing study and vocational skills Preparation Project. Olive Paine, Director. To provide remedial experiences in study skills and a specific assortment of previously determined difficult nursing skills of the practical nursing program for students whose needs are not met by regular programs.	NHVTC—Berlin.
70-05 Natural and Environmental Science Curriculum Wilbur H. Palmer, Director. To establish a new curriculum in environmental sciences which would provide for the acquisition of entry level skills in ecology-related occupations. This program is especially geared to disadvantaged students.	Alvirne High School Hudson.
70-06 Special Education Vocational Program Cliff Boivin, Director. To prepare the disadvantaged for placement on the job at the conclusion of training by using individualized instruction geared to students' abilities, to train students in new vocational areas with the use of a new teaching approach, and to adequately test students so that they are placed in training in a vocational field that suits their needs and abilities.	White Mtns. Supervisory Union No. 35.

b. Residential Vocational Education

At this time, there are three State facilities for minors with problems: the industrial school in Manchester, which is a prison, the New Hampshire State Hospital for the emotionally disturbed, and the Laconia State School for the retarded.

Presently, the population at the industrial school is a mix of children who have committed no crimes to those who have committed murder. Children are committed here, because no other kind of facility is available, who are runaways from poor environments and who are school truants. Their antisocial behavior is triggered by such causes as learning problems, combined with hostile and nonresponsive home environments. Some are nonreaders, may be suffering from minimal brain damage, or are retarded.

The present alternative to the industrial school is a foster home, however, this does not solve the problem of an education system which cannot be responsive to these childrens' needs.

It is certain that the problems these children encounter are not treatable in a prison environment. What is required is a humane environment which provides personal treatment services with a good education program.

If these children are to develop into functioning adults, then they must be provided with opportunities individualized to their separate needs in a supportive environment. Institutions have a way of institutionalizing people and that's bad. The humans who survive them don't learn how to adjust to a normal environment.

For these reasons, at least one residential vocational education center is certainly indicated for the State of New Hampshire.

There is no way that the State of New Hampshire is able to fund the establishment of such a residential center, and its creation and implementation would only be possible with the impetus of Federal funds.

c. Consumer and Homemaking

Consumer and homemaking education is offered in all except two of New Hampshire's public secondary schools. Enrollment in these schools has grown from 2,921 students in 1963 to 7,717 in 1972. This is due in part to population growth, but primarily to students and administrators realizing the relevancy of home economics education. New Hampshire population has increased by 21 percent from 1960 to 1970.

Home economics related occupations programs are available to students in 14 of the 20 area center schools. Child care services, food service, community services, and hospitality are the programs offered. Enrollments have grown from 42 students in 1968 to 244 in 1972.

Adult home economics education has had an increase of 218 students. In 1963 there were 695 enrollees and in 1973, 913. There were no adults in home economics related occupational programs in 1963. There were 244 students in this area in 1973. Funds to support these programs have been very limited and this has curtailed the development of programs.

Consumer education is an integral part of all home economics offerings. In most schools the only opportunity for students to gain knowledge and skills in this important subject matter area is through home economics. We have several schools offering semester courses in consumer education through our departments. A new home economics curriculum guide, soon to be available in the State, will have a section on consumer education. There is no consumer education guide available in the State through other disciplines. Consumer education inservice for teachers has been available only through the department of home economics at the University of New Hampshire, and the home economics consultant in the division of vocational education. Any school desiring Federal funds for home economics programs must state their objectives in consumer education before they are approved.

A brief description of two programs will illustrate our approach to emphasizing consumer education and family life for disadvantaged persons.

The first is a high school program called LIFE (Learning about Individuals, Families, and Employment). Students are selected for this program on the basis of having been unsuccessful in their other classes. In a homelike environment, they develop a better self-concept, realistically examine problems related to their families, develop employable skills, and become better decisionmakers through consumer education activities. The students, after experiencing many personal successes, move out of the program into the regular high school program. Because of its success, students without serious academic or personal problems, want to be enrolled in the program.

The second program is for adults. Its title is Operation Second Start. Men and women seeking adult basic education were found to be lacking in consumer education, family life education, and employment skills. With a small amount of Federal funding, we were able to provide them with skills in these three areas. One woman needing a job was afraid to approach employers. She was helped through the program to lose her fears and now is employed. There are many cases like this one, and we hope to make more programs available to these adults.

We have made a real effort to support schools in depressed areas of the State; offering them funds to upgrade teachers in the process of individualizing learning and in working with the resources and equipment needed to carry on a quality program. A special effort has been made to provide field trips for students who have never been outside of the rural community where they live. I regret to say that we do not have evaluative data to support what has happened to individual students. I do know because of close contact with these schools that it was not uncommon 5 years ago to walk into a classroom and see students working with a textbook as their only resource. Today when I visit the same classrooms the whole environment has changed. Federal funding has made it possible for these schools to have resources, visual equipment, and up-to-date laboratory equipment. Teachers, well trained in new educational concepts, are busy working with students on an individual basis with materials they have developed through our inservice programs.

In New Hampshire we have only $15,000 of State funding for home economics. This provides us with administrative expenses only. We are completely dependent upon Federal funds for the support we give to local schools. If the Federal funds were not available to us, we would not be able to provide the leadership so necessary to the continuation of these programs. The Future Homemakers Youth Organization would have no leadership. This organization cannot function for long without direction. FHA, strong in the depressed areas of the State, provides our young people with an opportunity to develop leadership so vitally needed in the depressed areas. We have not had in New Hampshire a curriculum guide for 10 years. The funding for this project will provide teachers with a new guide, and will give inservice training to 25 key teachers in the State. The promotion and development of adult programs would cease, and inservice so vital to the continuation of quality programs would be nonexistent. Grants to schools—$53,000 for 81 schools—though small, often makes the difference between having up-to-date resources and equipment for students or not having it. The following list summarizes our projected expenditure of Federal funds for the coming year.

Appropriation based on fiscal year 1972 Federal funding	$88, 934
Teacher education	20, 000
	68, 934
FHA State Advisor	4, 000
	64, 934
Curriculum project	8, 000
	56, 934
Adult education	2, 000
	54, 934
In-service for teachers	2, 000
	52, 934
One-third of appropriation for depressed areas	30, 000
	22, 934
All other schools approved for funding	22, 934
	00, 000

The total funding, though small compared to other appropriations you may deal with, is vital to our program in New Hampshire.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	2, 921	6, 508	42	7, 717	402	39	244	29	4
Adult	695			913	70	6	92	12	1
Total	3, 613	6, 508	42	8, 630	472	45	336	41	5

For fiscal year 1972, 472 disadvantaged students and 45 handicapped students were in consumer and homemaking programs. We would like to stress the fact that in 1963 there were no occupational home economics programs in New Hampshire. These were made possible by Federal funds.

d. Cooperative Vocational Education

500 students participated in cooperative education programs in fiscal 1972. Cooperative education is expanding quite extensively in New Hampshire. One of our objectives is that all the 20 area vocational centers will provide cooperative education programs in at least three program areas by 1977.

As of this year 12 area centers were already providing this capability and we anticipate that 14 centers will be doing so next year.

We are also developing diversified cooperative programs in schools; outside the area centers, with consideration to those areas characterized by high dropout rates and high youth unemployment. We now have five such programs operational and project that by 1977 we will have 30 programs.

We are still stressing adequate inservice teacher education which will focus on management and individualized instruction, as well as subject matter needs. We are currently providing such training for 430 teachers and anticipate that by 1977, 500 teachers a year will be involved.

e. Work Study Programs

	1963	1968	1972	1977
Number of students served	(1)	109	58	58
Number needing to be served		1,200	1,500	2,300

[1] None.

Our Federal work-study allocation for 1973 was $19,457 to which local districts contributed $5,000. This limits the number of students who may participate in this program. There was more funding available in 1968, therefore, more students could participate. Our records for 1972 indicate that an estimated 1,500 in-school youth required part-time employment. We don't even begin to make a sizable dent with present funding levels. All funds went directly to local districts. None was expended on administration.

f. Research and Training

Research part C funds have been instrumental in helping local districts conduct needs assessment studies in the areas of job market skills and student interest surveys in order to provide good data for making program development decisions.

One of the outcomes of research moneys will be a needs assessment manual for vocational education, which can be used by any local district to determine possible market needs, student needs, teacher needs, and resource needs.

This product will contribute to better management and decision-making. Another major effort made possible by research moneys was the development of a dissemination system which has provided computer searches through the ERIC series on vocational education, access to microfiche, and hard copy. In addition, we are now publishing an alerting service which lists materials concerning career education, new teaching techniques, program management, guidance, and the like.

Another major outcome of research funds is the development of a 1-3-5- Year Follow-Up system of students exiting from vocational programs.

These funds are also making it possible for us to develop a statewide system for process evaluation, as well as vocational programs.

STATE ADVISORY COUNCIL

The State Advisory Council was formed in early spring, 1969. Its strongest efforts have been in the area of public relations. The council supported and endorsed the 20 area center concept which is about to become law. It distributed 100,000 flyers.

It has published a newsletter and has been strengthening State participation in the American Vocational Association. The council has also been instrumental in bringing together the New Hampshire Business and Industrial Association and reviving their Education Committee.

One recommendation of the council was that a public relations man be hired for vocational education. The State Department of Education responded to this by hiring a public information officer.

The council wrote a special resolution supporting the accreditation of the postsecondary vocational-technical institutions. All of these institutions underwent an accrediting process this past spring.

SUMMARY AND RECOMMENDATIONS

During the past 10-year period, vocational education has advanced rather significantly in New Hampshire.

Construction funds available from the 1963 act assisted in the development of several new vocational facilities. Funds for disadvantaged and handicapped have initiated substantial increases in programs for this segment of our population. Increased emphasis on cooperative education has been helpful in creating new programs. There has of course been a significant change in the public's attitude which may also have contributed to these changes. The inflexibility of moving funds between classifications within the act has been somewhat detrimental in that at times, significant improvements could have been made but because of required set asides, such action was not possible.

The EPDA funds have been somewhat helpful but the significant complexity of securing those funds and getting Federal approval of projects, has to some extent, negated the value of this program. It is our feeling that block-grant-funding for vocational education would be helpful allowing the State flexibility within the grant for vocational education. It is equally important that the categorical aid for vocational education be maintained and specifically earmarked as administered by vocational education within the States. Major concern with the Better Schools Act is the uncertainty of the amount of money that would actually end up in vocational education and who would administer it.

We are of course concerned that vocational education would not receive as much money as in past years and that administrative funds for vocational education which are critically important to New Hampshire's operation would be separated and mixed with other administrative funds.

NEW JERSEY

State Director—Stephen Poliacik

INTRODUCTION

Since the promulgation of the Vocational Education Act of 1963 and the Amendments of 1968, the needs of more and more citizens of the United States, in terms of job placement, job satisfaction, and job improvement have been met. Historically, the use of Federal funds has enabled vocational educators to develop additional facilities, provide new career curricula, train vocational educators and increase support from individuals, community leaders, business, industry and labor. In addition, State and local moneys generated because the use of Federal funds has increased many-fold.

This is a report of the activities in New Jersey vocational education programs for the fiscal years 1963, 1968, 1972, and 1977 (projected). A table is included in this introduction showing total enrollments for each of these years.

For each of the program areas, comparisons have been made of each year's enrollment and this information has also been included by level of secondary, postsecondary, and adult. In addition, narrative statements in each vocational education program area describe the growth and activities in those respective areas.

A separate section gives the history of each of New Jersey's counties concerning vocational education building construction and equipment. A statistical summary is then provided showing State totals of Federal, State, and local expenditures for construction and equipment for the fiscal years 1963 to 1977.

The cooperation of the Federal Government under the Vocational Education Act of 1963 and the 1968 Amendments has been very instrumental in providing meaningful and high quality vocational instruction to an increasing number of New Jersey's disadvantaged and handicapped youth as well as to those students at the postsecondary level.

The expanded role of the New Jersey State Department of Education, Division of Vocational Education, during the last 10 years enabled a coupling effect to take place with Manpower Development and Training. Because of the expertise that had been developed in the division, a network of multioccupational skills centers emerged in New Jersey providing training opportunities for out-of-school youth and adults. The effects of the results have reciprocated back to the regularly constituted schools since valuable lessons were gained from dealing with the minority and disadvantaged groups. As a result of the exemplary work performed in skills centers, additional funding sources were developed with other agencies such as the Economic Development Administration of the U.S. Department of Commerce. Four vocational schools in Camden, Passaic, and Newark were constructed using EDA sources for funding, enlarging the capacity for vocational education.

The areas in which considerable effort was placed was the urban, disadvantaged population. In most instances, those to be served were those which had not benefited from the traditional school and were left to their own means to prepare themselves for the future. It is noteworthy to point out that these are the individuals who progress through the reformatories, and eventually to the prison complex of the State.

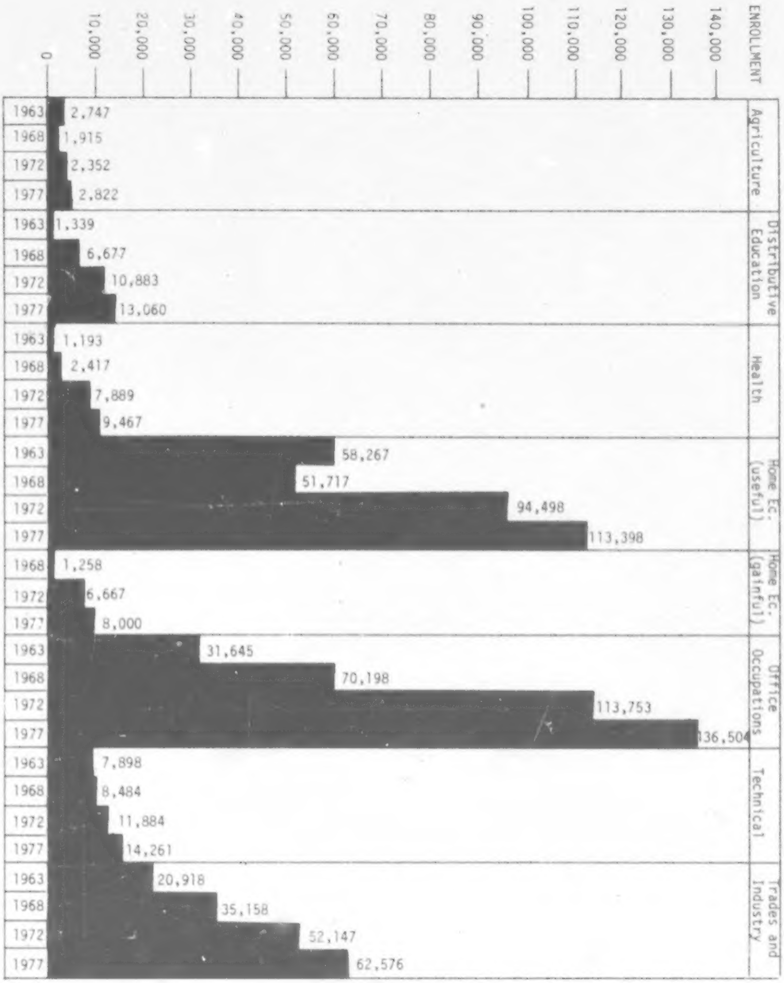
Narrative and statistical information relates to the history of each special Federal program including exemplary programs and projects, residential vocational education, consumer and homemaking, cooperative vocational education, work-study programs, and research and training.

Section 4 is a report of the New Jersey State Advisory Council for Vocational Education and describes their activities and recommendations since their inception in 1966.

Finally, a section is included which summarizes and numerically lists recommendations.

TOTAL ENROLLMENT IN VOCATIONAL EDUCATION

Program area	1963	1968	1972	1977 (projected)
Agriculture	2,747	1,915	2,352	2,322
Distributive education	1,339	6,677	10,883	13,060
Health	1,193	2,417	7,889	9,467
Home economics (useful)	58,267	51,717	94,498	113,398
Home economics (gainful)		1,258	6,667	8,000
Office	31,645	70,198	113,753	136,504
Technical	7,898	8,484	11,884	14,261
Trade and industrial	20,918	35,158	52,147	62,576
Total enrollment	124,007	177,824	300,073	360,088
Percentage increase		(43)	(69)	(20)


ENROLLMENT
0
10,000
20,000
30,000
40,000
50,000
60,000
70,000
80,000
90,000
100,000
110,000
120,000
130,000
140,000
Agriculture
1963 2,747
1968 1,915
1972 2,352
1977 2,822
Distributive Education
1963 1,339
1968 6,677
1972 10,883
1977 13,060
Health
1963 1,193
1968 2,417
1972 7,889
1977 9,467
Home Ec. (useful)
1963 58,267
1968 51,717
1972 94,498
1977 113,398
Home Ec. (gainful)
1968 1,258
1972 6,667
1977 8,000
Office Occupations
1963 31,645
1968 70,198
1972 113,753
1977 136,504
Technical
1963 7,898
1968 8,484
1972 11,884
1977 14,261
Trades and Industry
1963 20,918
1968 35,158
1972 52,147
1977 62,576

A. "JOB TRAINING ENROLLMENT BY AREA—BY LEVEL"

Program area and level	1963	1968	1972	1977 (projected)
Agriculture:				
Secondary	1,157	1,727	1,555	1,866
Postsecondary			86	103
Adult	1,590	188	711	853
Distributive education:				
Secondary	646	5,999	6,963	8,356
Postsecondary			872	1,046
Adult	693	678	3,048	3,658
Health:				
Secondary	75	1,046	1,334	1,601
Postsecondary	83	653	4,889	5,867
Adult	1,035	718	1,666	1,999
Home economics (useful):				
Secondary	58,267	35,724	67,602	81,122
Postsecondary			47	56
Adult		15,993	26,849	32,219
Home economics (gainful):				
Secondary		830	2,906	3,487
Postsecondary			51	61
Adult		428	3,710	4,452
Office:				
Secondary	31,243	68,316	86,944	104,333
Postsecondary	16	45	4,109	4,931
Adult	386	1,837	22,700	27,240
Technical:				
Secondary	1,273	2,351	1,559	1,871
Postsecondary		675	5,285	6,342
Adult	6,625	5,458	5,040	6,048
Trade and industrial:				
Secondary	7,673	16,293	22,163	26,596
Postsecondary		333	1,635	1,962
Adult	13,245	18,532	28,349	34,019
Total enrollment	124,007	177,824	300,073	350,088

b. General Description

Agricultural education in New Jersey is in the process of transition in the direction of the cluster concept of agri-business and natural resources education. Several schools have recently introduced offerings in the area of ornamental horticulture including greenhouse management and landscaping and grounds maintenance. Programs in natural resource occupations and cooperative agriculture education are being expanded, many of which are directed toward the disadvantaged student.

Distributive education programs in New Jersey have increased from 69 programs in 1963 to 176 in 1973 with a special thrust toward developing bilingual programs as well as programs in correctional institutions. With the availability of Federal funds, most programs have been up-dated in terms of instructional equipment as well as expanded. Available State leadership has resulted in several 2-year college level distributive education programs with emphasis on midmanagement and specialized marketing careers during the 2-year college movement of the past decade.

Health occupations education programs, through the availability of Federal funds, have been expanded to include operating programs in the following new and emerging careers: (a) podiatrist assistant, (b) physical therapy aide, and (c) ophthalmic technician.

Also, funding has permitted high school students to have learning experiences in a cluster of related occupational areas before selecting their specific area of interest and specialty in a health career. Skill development and related knowledge follows this cluster approach for entry into the health care industry.

Home economics education programs in related occupational areas received great impetus through the enactment of Federal vocational education legislation. Occupational courses have been implemented to prepare New Jersey youth and adults for newer job training thrusts such as: (a) Child care and guidance services, (b) clothing management services, (c) food service careers, and (d) hospitality and institutional management services. Home economics cooperative education programs, first implemented in 1968, were a direct result of the availability of Federal funds and, in addition to regular students, serve handicapped and disadvantaged youth. These courses, through a dual role component, permit learning experiences in consumer education, home management, and family life education in addition to the skill development objective.

Office occupations education programs are offered in every New Jersey comprehensive high school and, as a result of vocational education legislation during the past decade, have been significantly strengthened through the development of successful pilot and model programs. Cooperative office education has grown from 0 programs in 1963 to 183 in 1972. Through the availability of Federal funds, many secondary programs in business data processing now are operating preparing high school students with entry-level skills for a wide variety of occupations related to data processing. More recently, funds have been utilized to develop several office occupations programs at the secondary level in the newest office education concept of word processing. Special emphasis has been directed toward providing inservice teacher education and development of the vocational youth organization, future business leaders of America, with much success.

Trade, industrial, and technical education programs have enjoyed significant growth in the development of Federal job training programs for youth and adults in the area of trade and technical education at both the secondary and postsecondary levels. The newer job fields which fulfill the specific employment needs of New Jersey include the following: Postsecondary marine environmental technology, environmental and laboratory technology, aircraft powerplant mechanic and airframe mechanic, adult hair styling and hair pieces, secondary marine environmental technology, boatyard operation and maintenance, automotive fleet maintenance for county vehicles, aircraft powerplant machanic and airframe mechanic, and gas station operation.

Vocational programs for the disadvantaged.—Section 122 (4) (A), "Use of Federal Funds," 1968 amendments to the 1963 Vocational Education Act reads, Vocational education for persons other than handicapped persons defined in section 108 (6) who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program.

This implies that vocational programs offered to students described above must be different than regular vocational programs and must be designed to meet their needs and to help them enter or reenter the educational mainstream.

Thus, vocational programs offered in New Jersey to serve the disadvantaged, as defined above, are of two general types: (1) Specially designed programs, and (2) modified regular programs.

Clearly, programs of this type, different than the regular vocational programs, did not exist in 1963. It was not until 1965, that the New Jersey State plan was approved. History shows that it was not until the 1968 amendments to the Vocational Act came into being, providing categorical funding for vocational programs for disadvantaged students, that any movement toward meeting the vocational needs of these students became visible.

Special vocational programs for disadvantaged students in fiscal year 1970, numbered 54. Modified regular programs in operation that year numbered 36. There were 3,000 disadvantaged students served in these programs.

Two years later, there were 236 programs serving more than 13,500 disadvantaged students in New Jersey. Further expansion has occured during the current year.

Clearly, vocational programs designed to meet the needs of the disadvantaged are proving their effectiveness. An increasing number of school districts are including vocational programs for these special needs students in their offerings.

Applications for support of programs for the disadvantaged for the 1973–74 school year are approximately 40 percent greater in number than the 1971–72 school year.

Obviously, a larger percentage of applications from local school districts seeking support represent new programs. There is no doubt that these programs will not be implemented unless funds are made available.

Without liberal-categorical funding on a national level, existing vocational programs for the disadvantaged will suffer immeasurably and there is great danger that most of the gains that have been made would be cancelled.

Specially designed programs for the disadvantaged are identified as follows: (1) Employment orientation, (2) summer employment orientation, (3) work experience career exploration program (WECEP), and (4) cooperative industrial occupational training (C.I.E. No. 2).

Employment orientation.—The employment orientation program is an inschool prevocational training program containing all the elements of real work. The program consists of two phases. (1) A simulated work phase operated under conditions that establish, as closely as possible, a real work situation. Objectives of this phase is to motivate pupils to stay in school and to develop positive work habits and attitudes. (2) The basic skill training phase provides training in a variety of basic skills. Through this activitiy, a student's interests and aptitudes may be assessed and developed. The student and the school is in a much better position to make decisions regarding his future training and education.

Work experience career exploration program (*WECEPQ*.—The WECEP program is a part-time cooperative work experience program for 14 and 15 year old disadvantaged and handicapped youth. The program inaugurated in 1969, with 11 programs serving 150 students, is completing the experimental phase this current year. At present there are 33 programs serving 550 students.

To date, participation in the experimental phase of this program has been largely effected by invitation to school districts in depressed areas. The success of the program has been noticed throughout the State. Inquiries and applications for support for implementing WECEP programs have multiplied during the current year.

Cooperative industrial occupations (*CIE No. 2*) is an industrial cooperative program which allows a pupil to spend half time in school and half time on the job for pay and credit. Most of the jobs in which the pupils are placed are below the level of the skilled trades and are therefore suitable for disadvantaged pupils who lack the skills to become craftsmen.

Through an understanding between the Division of Vocational Education, and the Department of Labor, pupils aged 16 and 17 years may be placed in industrial employment categorized as hazardous and normally requiring that the worker be 18 years old.

In the inschool portion, one period of related instruction conducted by the coordinator is required daily.

In 1972, there were 161 approved C.I.E. No. 2 program in the State serving 2,349 disadvantaged students. Implementation of these programs was directly due to categorical funding provided by the 1968 amendments to the Vocational Education Act of 1963.

Vocational education programs for the handicapped, including the mentally retarded, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, physically handicapped, and other health impaired persons, are provided with the intention of enabling students to make direct entrance into various vocational fields as skilled or semiskilled workers, or to increase the overall capability of students so that they may enroll in programs from which they may enter into employment.

Vocational programs for handicapped students were almost nonexistent prior to the passage of the Vocational Amendments of 1968. Growth and expansion of these programs has come about mainly due to the mandate in this legislation that 10 percent of our Federal funds be spent for programs for the handicapped student.

Vocational programs for handicapped students have grown from approximately onehalf dozen programs serving less than 100 students prior to 1968 to our present year (fiscal year 1973) in which we are sponsoring 123 programs serving 5,260 handicapped students. Next year's applications for financial assistance for vocational programs for the handicapped have increased by 50 percent over the number of applications for the current year.

The Bureau of Special Needs of the Division of Vocational Education has encouraged the local school districts to develop special programs as well as modified regular programs in order to help that student who is not making it in the regular program, so that he may experience success and reenter the mainstream.

Most of these specialized programs require large initial capital expenses for equipment; and were it not for the special 10 percent set aside funds, most districts would not have been able to start such programs.

One of these specialized programs known as employment orientation has been of tremendous help to handicapped students by enabling them to experience realistic requirements of jobs through simulated work of a hands-on nature within the school. In addition, the employment orientation program has grown from 261 handicapped students in 1968 to 3,269 handicapped students in fiscal year 1973 with a projected enrollment of 6,000 in 1977.

Two unique efforts at collaboration with other agencies regarding the employment orientation program should be pointed out. Both efforts involved the use of the 10 percent set aside funds.

The first effort centered around the development of an employment orientation program by a local school district using the facilities of a State school for the mentally retarded to train handicapped students to job requirements and opportunities within the State school.

In the second project, the local school district developed an employment orientation program using the facilities of a national recreation park area to provide job orientation in environmental occupations.

Additional efforts at collaboration with other organizations using the 10 percent set aside funds have developed with the State colleges and universities in the area of preparation of teachers for the special needs student. These funds have enabled the colleges to develop curriculum models for teacher training, and have provided the resources for conducting workshops through which practitioners, special educators, and vocational educators can exchange ideas concerning teacher needs and curricula.

Another special program for handicapped students funded largely with the 10 percent set aside is known as cooperative employment orientation. In this program, the student spends roughly one-half of the school day learning and earning on the job. The other half of the day is spent in school on academics and related class course work.

This program has also grown rather rapidly since the passage of the Vocational Amendments of 1968. Growing from an enrollment of 152 handicapped students in 1968, to 503 handicapped students in fiscal year 1973.

Cooperative vocational education programs in New Jersey have shown marked growth during the 1963–72 period. Coooperative industrial education programs, in particular, have expanded in a most dramatic way. In 1963 cooperative industrial education programs at the secondary level numbered a few and enrolled a handful of students. In 1972, enrollment was 5,234.

The popularity of the cooperative industrial education program may be due to the following:

(1) School districts are able to implement cooperative programs with very little cost.

(2) The real work world offered training in large numbers of occupational areas. This is impossible in an inschool setting.

(3) It provided needy students with an income, and thus kept large numbers of students in school.

(4) Students trained by industry were, in many instances, offered jobs upon school graduation.

(5) The program offered real experience in the real world for students still in school. Thus, students having a greater awareness of the occupational world were in a better position to make decisions regarding future training and education.

Clearly, the support and impetus provided by Federal funds had much to do with the dramatic growth of cooperative education. There is a great need for this continued support.

Mobile vocational units.—The difficulty of starting new special needs programs in the many school districts which had (a) dubious interest, (b) a lack of know how, and (c) no space in which to do it, was recognized before the 1968 amendments appeared. While cooperative programs could be, and were, installed easily in midsemester, initiating inschool programs involving equipment was a different story. To speed the development of such programs, New Jersey became a leader in mobile vocational education.

Mobile vocational units were designed, staffed, and equipped to go into local districts for a period of 6 weeks and demonstrate new vocational approaches and the possible effect upon special needs pupils. The major aim was to show the local administration that their particular pupils could be helped. If space were available, the superintendent could apply for State and Federal financing to replicate these programs locally. If no space were available, plans already on the drawing board for new construction could be altered to incorporate such programs.

New Jersey began in 1968 with one vocational unit and by 1973, this had become 12 mobile units serving schools at all levels, parochial, and penal institutions. The response from those served has been most enthusiastic and even the 12 units were unable to keep up with local demands for service.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

EXPENDITURES FOR VOCATIONAL EDUCATION BY SOURCE, PURPOSE, AND LEVEL

READ INSTRUCTIONS ON REVERSE BEFORE COMPLETING THIS FORM

O.M.B. NO. 51-R0841, APPROVAL EXPIRES: MARCH 31, 1973

STATE/OUTLYING AREA: BALTIMORE CITY

DATE PREPARED: 12/15/72

FISCAL YEAR ENDING: June 30, 1972

REPORT DUE: October 1, 1972

PROGRAM	TOTAL FEDERAL (Total Dollars)	TOTAL STATE/LOCAL (Total Dollars)	SECONDARY (In Thousands)		POSTSECONDARY (In Thousands)		ADULT (In Thousands)	
			FEDERAL	STATE/LOCAL	FEDERAL	STATE/LOCAL	FEDERAL	STATE/LOCAL
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1. TOTAL, ALL PARTS	1,014,131	14,293,871	761	12,106	208	2,149	45	39
2. PART A 102(b) - DISADVANTAGED	-	-	-	-	-	-	-	-
3 PART B 102(a) - STATE PROGRAMS TOTAL	899,797	12,304,406	648	10,117	208	2,146	45	39
4 (1) SECONDARY	386,289	7,217,817	386	7,218				
5 (2) POSTSECONDARY	208,191	2,148,600			208	2,149		
6. (3) ADULT	45,406	38,009					45	39
7. (4)(a) DISADVANTAGED	138,720	339,486	139	338	-	-	-	-
8. (b) HANDICAPPED	121,061	339,043	121	339	-	-	-	-
9 (5) CONSTRUCTION	-	2,221,852	-	2,222	-	-	-	-
0. (6) GUIDANCE AND COUNSELING	(164,406)	(274,848)	(134)	(149)	(30)	(126)	(-)	(-)
1. (7) CONTRACTED INSTRUCTION	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
12. (8) ANCILLARY SERVICES	(177,056)	(602,169)	(132)	(563)	(-)	(-)	(45)	(39)
3 PART C - RESEARCH (State) TOTAL	-	-	-	-	-	-	-	-
14. (1) RESEARCH COORDINATION UNIT	-	-						
5. (2) GRANTS NEW PROJECTS (No.)	-	-						
6. (3) CONT. PROJECTS (No.)	-	-						
PART D - EXEMPLARY (State) TOTAL	-	-	-	-	-	-	-	-
(1) DISADVANTAGED	(-)	(-)	-					
9 (2) HANDICAPPED	(-)	(-)						
0. (3) NEW PROJECTS (No.)	-	-						
1 (4) CONTINUING PROJECTS (No.)	-	-						
PART F - CONSUMER AND HOMEMAKING TOTAL	3,269	1,981,013	3	1,981	-	-	-	-
(1) DEPRESSED AREAS	(3,269)	(1,981,013)	(3)	(1,981)	(-)	(-)	(-)	(-)
(2) DISADVANTAGED	(3,269)	(1,981,013)	(3)	(1,981)	(-)	(-)	(-)	(-)
(3) HANDICAPPED	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
PART G - COOPERATIVE TOTAL	-	-	-	-	-	-		
7. (1) EMPLOYER REIMBURSEMENT	(-)	(-)	(-)	(-)	(-)	(-)		
(2) DISADVANTAGED	(-)	(-)	(-)	(-)	(-)	(-)		
9 (3) HANDICAPPED	(-)	(-)	(-)	(-)	(-)	(-)		
PART H - WORK STUDY TOTAL	111,065	8,452	111	8	-	-		
(1) ADMINISTRATION	11,188	760	11	1	-	-		
(2) STUDENT COMPENSATION	99,877	7,692	100	7	-	-		
(a) DISADVANTAGED	(111,065)	(8,452)	(111)	(8)	(-)	(-)		
4. (b) HANDICAPPED	(-)	(-)	(-)	(-)	(-)	(-)		

OE FORM 3131, 5/71 REPLACES OE FORM 3131, 6/70, WHICH IS OBSOLETE

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

TOTAL EXPENDITURES FOR VOCATIONAL EDUCATION BY OBJECT, PURPOSE, AND LOCATION

(Vocational Education Amendments of 1968, P.L. 90-576)

READ INSTRUCTIONS BEFORE COMPLETING THIS FORM

O.M.B. NO. 51-R0641
APPROVAL EXPIRES: 3/31/73

STATE/OUTLYING AREA Baltimore City	DATE PREPARED
FISCAL YEAR ENDING 6/30/72	REPORT DUE 10/1/72

SECTION I - EXPENDITURES BY TYPE OF POSTSECONDARY INSTITUTION

TYPE OF INSTITUTION (a)	TOTAL (b)	FEDERAL (c)	STATE AND LOCAL (d)
1. TOTAL	2,356,791	208,191	2,148,600
2. COMMUNITY COLLEGES	2,356,791	208,191	2,148,600
3. TECHNICAL INSTITUTES	-	-	-
4. VOCATIONAL TECHNICAL, OTHER	-	-	-

SECTION II - EXPENDITURES BY LOCATION

EXPENDITURES BY LOCATION (a)	TOTAL (b)	FEDERAL (c)	STATE AND LOCAL (d)	ECONOMICALLY DEPRESSED AREAS	
				FEDERAL (e)	STATE & LOCAL (f)
1. TOTAL (Sum of lines 2 and 4)	15,188,485	2,031,135	13,157,350	2,031,135	13,157,350
2. SMSA	-	-	-	-	-
3. CENTRAL CITY	15,188,485	2,031,135	13,157,350	2,031,135	13,157,350
4. NON-SMSA	-	-	-	-	-

SECTION III - EXPENDITURES BY LEGISLATIVE PURPOSE

LEGISLATIVE PURPOSES (a)	INSTRUCTIONAL COSTS			GUIDANCE AND COUNSELING (e)	ANCILLARY SERVICES			
	INSTRUCTIONAL SALARIES (b)	INSTRUCTIONAL EQUIPMENT (c)	OTHER INSTRUCTIONAL COSTS (d)		ADMINISTRATION, SUPERVISION, AND EVALUATION (f)	TEACHER EDUCATION (g)	RESEARCH AND DEMONSTRATION (h)	CURRICULUM DEVELOPMENT (i)
1. PART A 102(b) DISADVANTAGED	-	-	-	-	-	-	-	-
2. PART B 102(a) STATE PROGRAMS TOTAL	8,702,588	266,399	422,683	438,255	1,105,170	26,379	-	20,877
3. SECONDARY	6,223,713	99,606	283,142	264,900	728,646	3,899	-	300
4. POSTSECONDARY	1,658,012	141,706	100,204	155,634	264,632	22,228	-	14,375
5. ADULT	35,543	-	4	-	48,528	-	-	-
6. DISADVANTAGED	381,081	20,387	23,519	10,280	35,555	252	-	6,202
7. HANDICAPPED	404,239	4,700	15,814	7,541	27,809	-	-	-
8. PART C - RESEARCH RCU	-	-	-	-	-	-	-	-
9. GRANTS	-	-	-	-	-	-	-	-
10. PART D - EXEMPLARY	-	-	-	-	-	-	-	-
11. PART F - CONSUMER AND HOMEMAKING TOTAL	1,886,028	1,635	49,210	-	45,948	205	-	1,256
12. DEPRESSED AREAS	1,886,028	1,635	49,210	-	45,948	205	-	1,256
13. PART G - COOPERATIVE	-	-	-	-	-	-	-	-

The kinds of mobile units in service are as follows:

- Assembly line (two).
- Automotive engine tuneup.
- Small engine.
- Advanced small engine.
- Keyboard skills.
- Keyboard, simulated office and key punch.
- Evaluation (Singer Graflex) (two).
- Plastics (two).
- Graphics.

In fiscal 1974, with the demonstration phase over, these units will be operated through two large area vocational-technical schools to provide short term vocational training.

Number of mobile units: 1963, 0; 1968, 1; 1972, 12; 1977, (*).

Number of mobile unit visitations to schools: 1963, 0; 1968, 10; 1972, 103; 1977, (*).

Average duration of stay in one school location—5 weeks.

Urban occupational education and manpower training.—The expansion of vocational opportunities as a result of increased funding from other agencies such as Economic Development Administration of the U.S. Department of Commerce, made it possible for occupational programs to be introduced that previously did not exist or in very limited numbers. Valuable lessons gained from the manpower programs whereby job training was initiated after a need was demonstrated, became incorporated into the planning process. New Jersey has rapidly been changing from an area of manufacturing to an area of service.

The vocational schools have tried to modify its offerings to correspond with the labor demands. Training opportunities in fields such as computer technology, electronics technicians, and environmental systems control have emerged to meet the needs.

In Newark, the State's largest city and probably the one area plagued with more problems than any other city in New Jersey, has under construction a technical careers center and a center for occupational education/experimentation and demonstration. Both of these new facilities as a result of manpower experiences, will closely pattern their operations to the needs of industry in the area.

c. *Postsecondary*

The past 10 years has been a period of growth for postsecondary education in New Jersey.

Sixteen community colleges, 19 county vocational-technical schools, and 15 comprehensive high schools offer postsecondary training.

The community college movement in New Jersey became a strong factor in 1966 when four colleges started their first classes.

In 1973, 16 colleges are in full operation.

The enrollment figures show continuing increase from no enrollments in 1963 in some areas to substantial enrollments in 1972.

The 1963 enrollment figures did not distinguish between postsecondary and adult enrollments since the definition was not in force at that time.

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*The demonstration phase sponsored by State department of education terminated in 1973 due to fund uncertainties.

C. POSTSECONDARY PROGRAM ENROLLMENTS

Program area	1963	1968	1972	1977 (projected)
Agriculture:				
Community college	0	0	129	154
Area vocational schools	(1)	0	86	92
Distributive education:				
Community college	0	40	113	750
Area vocational schools	(1)	0	53	110
Health:				
Community college	0	251	2, 226	3, 116
Area vocational schools	(1)	653	2, 663	3, 568
Home economics (useful):				
Community college	0	0	0	0
Area vocational schools	(1)	0	47	66
Home economics (gainful):				
Community college	0	40	615	738
Area vocational schools	(1)	0	1, 339	1, 605
Office:				
Community college	0	3, 000	3, 502	4, 202
Area vocational schools	(1)	45	607	708
Technical:				
Community college	0	717	3, 476	4, 171
Area vocational schools	(1)	675	1, 809	2, 171
Trade and industrial:				
Community college	0	175	421	506
Area vocational schools	(1)	333	1, 214	1, 457

[1] Not available.

D. ENROLLMENT DATA, DISADVANTAGED

	1963	1968	1972	(Projected) 1977
Special programs:				
Employment orientation	0	0	1, 700	3, 100
Summer employment orientation	0	0	1, 850	3, 200
WECEP	0	0	306	600
C.I.E. No. 2	0	750	2, 349	3, 000
Totals	0	750	6, 205	9, 900
Modified regular programs:				
Agriculture	0	0	284	500
Distributive education	0	0	2, 600	3, 300
Home economics	0	0	224	450
Office occupations	0	0	274	500
Vocational industrial education	0	0	700	1, 200
Totals	0	0	6, 164	8, 300

E. ENROLLMENT DATA, HANDICAPPED

	1963	1968	1972	(Projected) 1977
Special programs:				
Employment orientation	0	261	3, 085	6, 000
Cooperative employment orientation	0	152	460	650
Totals	0	413	3, 545	6, 650
Modified regular programs:				
Agriculture	0	0	143	200
Distributive education	0	0	15	30
Health occupations			23	50
Home economics			0	30
Consumer and homemaking			15	30
Office occupations			107	200
Introduction to vocations	0	0	316	450
Technology for children	0	0	132	200
Vocational industrial education	0	0	151	200
Totals	0	0	902	1, 390
Grand totals	0	413	4, 447	8, 040

f. Adults

Adult vocational-technical education in New Jersey adheres to a philosophy which stresses that programs are to be broad in scope, diverse in offering, and available to the entire adult population. In theory adult vocational-technical education should be available in every school district and should reflect the retraining and upgrading of occupational needs of that district's adult population. Efforts on the State level are directed toward the accomplishment of this goal.

Enrollment in such courses has quadrupled from fiscal year 1972. Concurrently, the fiscal resources on both the State and local level have had similar gains. While there are Federal funds available for these programs, the level of Federal funding has had little impact when compared to the local effort and the job that has to be done. By conservative estimate, we are only serving one-tenth of the potential adult population in need of training or retraining. Manpower programs, while important, cannot begin to help in this effort, MDTA only enrolls about 7 percent of the participating adult population, at twice the total dollar cost of the remaining 93 percent.

National trends and studies, such as "Work in America," all point to a need for a broad based delivery system that will provide those continuous training alternatives for our rapidly changing employment picture. Adult vocational-technical education has the system, the flexibility, and the structure to accomplish these long range needs.

ADULT VOCATIONAL EDUCATION AND APPRENTICE ENROLLMENTS, FISCAL YEARS 1963, 1968, 1972, 1977

Program area	1963		1968		1972		1977	
	Adult vocational	Apprentice	Adult vocational	Apprentice	Adult vocational	Apprentice	Adult vocational	Apprentice
Agriculture	1,590		188		711		853	
Distributive education	693		678		3,048		3,658	
Health	1,035		718		1,666		1,999	
Home economics (useful)			15,993		26,849		32,219	
Home economics (gainful)			428		3,710		4,452	
Office	386		1,837		22,700		27,240	
Technical	6,322	303	4,833	625	4,248	792	4,608	1,440
Trade and industrial	9,758	3,487	12,218	6,314	21,941	6,408	23,459	10,560
Totals	19,784	3,790	36,893	6,939	84,873	7,200	98,488	12,000

MDTA ENROLLMENT AND EXPENDITURES

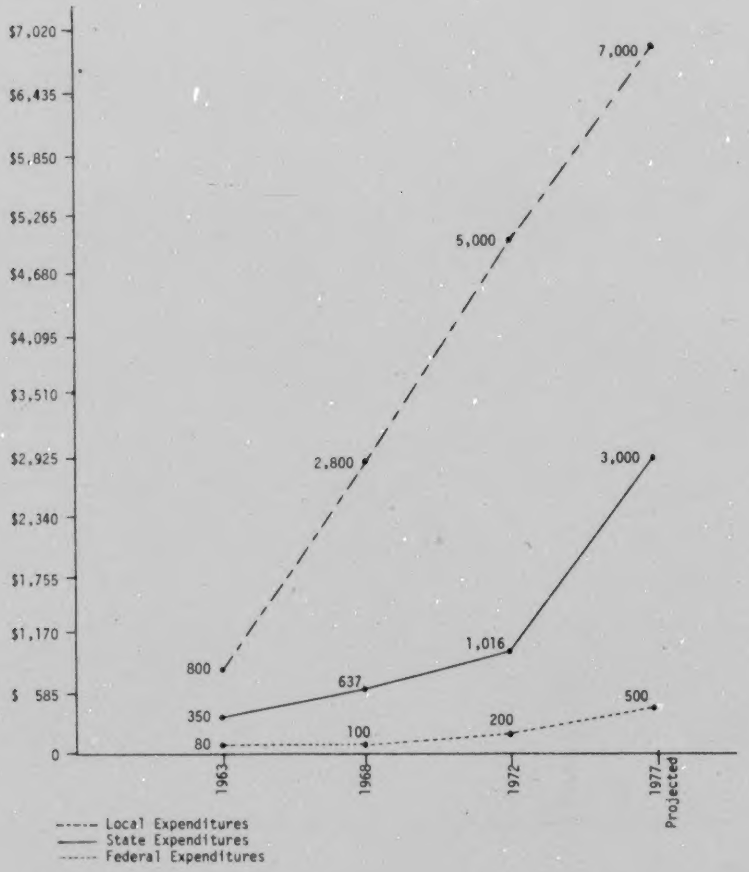
	Fiscal year			
	1963	1968	1972	1977
Enrollment	2,542	6,093	5,801	
Expenditures	$2,283,267	$10,078,710	$11,809,763	

ADULT VOCATIONAL-TECHNICAL EDUCATION FISCAL EXPENDITURES

	Fiscal year			
	1963	1968	1972	1977
Federal	$80,000	$100,000	$200,000	$500,000
State	350,000	637,000	1,016,000	3,000,000
Local	800,000	2,800,000	5,000,000	7,000,000
Totals	1,230,000	3,537,000	6,216,000	10,500,000

FISCAL EXPENDITURES FOR ADULT VOCATIONAL-TECHNICAL EDUCATION

In Thousands of Dollars



g. Financing (i)

New Jersey is utilizing a computerized system to disburse all Federal funds. Local educational agencies are requested to submit applications for specific vocational education programs. These applications are detailed and request the following information:

Course title, OE code.
Starting, ending dates; number of weeks.
New or ongoing course status.
Estimated grade level enrollment.
Requested amount of funds in detail (salaries, travel, equipment, supplies).
Local contribution to course.
Long-range plan for vocational education in program.

Evaluation and anticipated needs according to labor market area and county manpower forecasts.

These applications are submitted through the county superintendents to the State department of education, division of vocational education, and evaluated.

Evaluation criteria.—The initial evaluation is completed using the computer. Each district and each course is evaluated using the following criteria:

(1) Excess cost—State aid figures for each district were collected from the division of finance. The State aid figures are based on the ability of the local education agency to provide the resources necessary to meet the vocational education needs. A frequency distribution of 0 to 9 was allotted.

(2) Ability to Pay—The tax effort of each district submitting, as reported to the division of administration and finance, was used on a frequency distribution of 0 to 9.

(3) Vocational education needs—The number of dropouts of each district, as reported to the State deparment, Office of statistics, was used on a frequency distribution of 0 to 9.

(4) Model city—If a district was a model city, one point was added.

(5) Standard Metropolitan Statisticsl Area—A State department of labor categorization was utilized. The points were allotted as follows:

SMSA and center city, 6 points.
SMSA and not center city, 4 points.
Not SMSA or center city, 2 points.

(6) Student characteristics—Individual courses received points for students as follows:

Regular, 18 points.
Disadvantaged, 12 points.
Handicapped, 6 points.

(7) Student level—Individual courses received points for students as follows:

Secondary, 21 points.
Elementary, 14 points.
Adult/postsecondary, 7 points.

The points for each course were then totaled and the highest score was placed on top in each funding segment of part B, according to mandated percentages.

Funding allocations.—From the original allocation, mandated expenditures are calculated and allotted. These mandated percentages are:

Disadvantaged, 15 percent.
Handicapped, 10 percent.
Postsecondary, 15 percent.

The remaining money are used for State administration, secondary programs, adult programs, teacher education programs, construction, and private institutions. The program personnel make funding decisions based on money available, quality of the programs, and State-established funding policies.

Financial distribution and accountability.—The local districts receive 50 percent of their allocation at the beginning of the year and the remaining 50 percent at the end of the year, after a final report has been submitted to the State department of education. Interim funding is available, if necessary.

This LEA final report contains the entire cost of the course including Federal, State, and local moneys. We utilize this local money for matching Federal funds. The local money expended on vocational education greatly exceeds the Federal money allocated.

Financing (ii)

Federal and State disbursement to cities and poor rural areas in fiscal year 1971–72.—The total population of New Jersey according to the 1970 U.S. Census was 7,168,164. There were only two cities in New Jersey in 1970 with a population in excess of 250,000. Newark had a population of 382,417 and Jersey City had a population of 260,545. The following table lists the Federal and State funds disbursed to each city and the relative percentages.

City	Percent of New Jersey population	Federal funds disbursed	Percent of total Federal funds disbursed	State funds disbursed	Percent of total State funds disbursed	Combined Federal and State funds disbursed	Percent of combined Federal and State funds disbursed
Newark	5.3	$430,814	5.1	$157,227	2.8	$558,041	4.2
Jersey City	3.6	144,645	1.7	24,157	.5	168,802	1.2

The discrepancy with respect to Jersey City's population and its share of Federal and State disbursements is explained by (1) the absense of postsecondary programs and (2) the new Hudson County Vocational School is not yet operational. However, the Hudson County Vocational School will be operational within 18 months. Many of Jersey City's students will attend the Hudson County Vocational School.

Among the poorest rural areas in New Jersey in 1970 were Bridgeton with a population of 20,435, Pemberton Township with a population of 19,754, Paulsboro with a population of 8,084, and Salem City with a population of 7,648. The following table lists the Federal and State funds disbursed to each rural area and the relative percentages.

Rural area	Percent of New Jersey population	Federal funds disbursed	Percent of total Federal funds disbursed	State funds disbursed	Percent of total State funds disbursed	Combined Federal and State funds disbursed	Percent of combined Federal and State funds disbursed
Bridgeton	0.3	$50,260	0.6	$6,440	0.1	$56,700	0.4
Pemberton Township	.3	12,150	.1	7,600	.1	19,750	.1
Paulsboro	.1	14,492	.2	1,143	.2	15,635	.1
Salem City	.1	47,866	.6	46,479	.8	94,345	.7

The discrepancy with respect to Pemberton Township's population and its share of Federal and State disbursements is explained by the fact that the district had no vocational offerings other than office occupations.

FEDERAL, STATE, AND LOCAL EXPENDITURES FOR CONSTRUCTION AND EQUIPMENT

Fiscal year	Federal expenditures	State expenditures	Local expenditures
1962-63	0	0	0
1963-64	0	0	0
1964-65	$1, 223, 666	$159, 773	$2, 161, 378
1965-66	1, 538, 180	104, 500	3, 229, 331
1966-67	2, 104, 000	0	3, 923, 908
1967-68	2, 138, 775	1, 000, 000	3, 138, 775
1968-69	1, 719, 937	1, 719, 937	3, 439, 874
1969-70	2, 272, 260	3, 295, 977	5, 572, 578
1970-71	3, 275, 110	2, 513, 352	5, 904, 660
1971-72	3, 478, 907	2, 705, 358	6, 196, 047
	Projected expenditures		
1972-73	3, 470, 513	4, 000, 000	6, 790, 513
1973-74	4, 000, 000	4, 000, 000	8, 000, 000
1974-75	4, 000, 000	4, 000, 000	8, 000, 000
1975-76	4, 000, 000	4, 000, 000	8, 000, 000
1976-77	3, 387, 761	3, 387, 761	6, 775, 522

a. Exemplary Programs and Projects

Technology for children.—Technology for children, an elementary school career development program, gives children an opportunity to take an active role in their learning environment. Abilities and potentials are explored, and developed to give each child a better understanding and appreciation of his future career role.

In the fall of 1966, technology for children was being implemented in nine local school districts located in four New Jersey counties by 21 elementary classroom teachers. This pilot project got underway with a six-member staff and a budget of $55,300. Near the end of 1966, the State department of education, division of vocational education received a $166,000 Ford Foundation grant for partial funding of the program.

The teachers, who had participated in the program during the 1966–67 school year, were asked to attend a 6-week 1967 summer workshop for additional training. In addition, 10 new participants took part in the training session.

Six years later, after further program development and again financial assistance from the Ford Foundation, the division of vocational education, and after 1 year of participation in Governor Cahill's career development program, technology for children had grown in numbers to 577 teachers, 14,000 children and 78 districts. Technology for children was now represented in every one of New Jersey's 21 counties.

It is expected that after a decade of operation, in 1976–77, technology for children will be operating in 70 percent of the school districts with 3,650 elementary classroom teachers, and 73,000 children in the State of New Jersey. This level of implementation throughout the State will be maintained if fiscal assistance to the program and teachers is continued as it has been in the past.

Career education. Seed moneys made available under part D of the 1968 Act have allowed New Jersey to become a national leader in the career education movement. Through relatively small grants a number of local educational agencies have redirected their own resources (human and financial) to bringing about a sequential career education program.

The Federal funds also generated a groundswell of support at the State level. In 1970 Governor Cahill and the legislature appropriated $318,000 to support career development. In 1971 the supplemental appropriation again provided $318,000, in 1972 this was increased to $747,000 and next fiscal year budget will provide $1,684,000 to expand career development programs in 16 of New Jersey's urban areas.

Some of the unique projects made possible under part D funding include:

Hackensack—single district school based model—1969–70.
Woodbridge Township—five school regional approach to career development—1972–73.
Asbury Park—single school computer service career development model with a capacity to serve 200 school districts—1972–73.
Vineland and Glassboro State College—local district and State college united to provide career education—1973–74.
Governor Cahill Career Development Project—3 cities—1970–71, 3 cities—1971–72, 6 cities—1972–73, 16 cities—1973–74.

(These projects were funded from State funds.)

1968–69 career education enrollment participation

1. Special Vocational Guidance and Counseling Projects:	
Teachers/Counselors	175
Students	3,000
Note: 25 school districts.	
2. Vocational Awareness of Elementary Students:	
Teachers/Counselors	20
Students	400
3. Audio-Visual in Counseling:	
Teachers/Counselors	12
Students	150
4. Job Placement:	
Counselors	5
Students	1,200
5. School-Community Relations:	
Counselors	7
Students	1,300

1972-73 CAREER EDUCATION PROJECTS

LEA	Students	Teachers/Counselors
Hackensack	2,872	197
Asbury Park	2,534	40
Woodbridge (5 School districts)	4,000	300

Projection (State and Federal Funds); career education projects

1. Career Counseling Model:	
Counselors	300
Students	90,000
2. Career Education Model:	
Teachers/Counselors	1,000
Students	350,000

b. Residential Vocational Education

There is a need for residential vocational education centers in the State. Why residential as opposed to the vocational school in the traditional setting?

The purpose of a residential school is to provide a meaningful program for students in a controlled environment. It can be assumed that all of the traditional vocational schools have adequate funds, good teachers, modern equipment and school plants, and updated curricula. However, the vast majority of students who do not go to college, including over 4,000 dropouts, are ill-prepared to meet the challenges of the world of work. They do not have the skills to enter into gainful and meaningful employment. There must be a reason why students are not receiving the full benefits of vocational education in the traditional setting.

There is conclusive evidence that the factors hindering the development of many vocational school students evolve from environmental elements. A residential vocational school has a controlled environment.

The federally funded Job Corps program is a prime example of a successful residential vocational education program even though it limits those who may enter by establishing strict guidelines. It is based on a controlled environment which supports the learning processes. The distractions and pressures of the home environment are relegated to a much lesser role. The diversions of the home and the street on a daily basis do much to inhibit the learning process and preimposes unreal values for many students who would progress in a residential setting.

By subdividing the State into three sections, three residential education centers would be established. It is necessary to have more than one because of transportation problems, the diversity of training needed which varies in different parts of the State based on manpower skills needs, the flexibility needed to allow for proper mixing of rural, urban, racial and ethnic groups, and, most importantly, to allow for flexibility to meet the individual needs of the students.

c. Consumer Homemaking and Occupational Home Economics

Available Federal funds has made it possible to focus an intense drive directly to one of the prevailing challenges of our time—the preservation and stability of the American home. Programs providing needed instruction related to family needs have been implemented in such areas as: (a) Nutrition, (b) child care and guidance, (c) housing, (d) family relations, and (e) the management of family resources.

Emphasis has been given consumer education and programing for family life in economically depressed areas by implementation of such programs as: (a) Education for parenthood, (b) nutrition education, (c) home management, and (d) career awareness, and, (e) the dual role of homemaker and wage earner. New courses, as well as modification of old courses, are focusing in on social and cultural changes of our times.

Overall, there has been an increase in the number of students being served—particularly, in the case of enrollment of boys.

In New Jersey, interdisciplinary consumer education courses have been encouraged and implemented through the cooperative efforts of teachers from a variety of academic disciplines. The YCIA (Young Consumer in Action) Task Force, composed of representatives from all vocational youth organizations, have been trained to implement regional consumer education programs for school and community groups.

New Jersey youth and adults are being served through family life and consumer education programs at centers located in major economically depressed urban areas. Some of these programs involve parents, neighborhood centers, day-care centers, and housing projects. In addition, consumer education courses have been implemented in adult evening schools throughout the State.

Federal funds have made possible such key developments in New Jersey as (a) The Nutrition Education Center, and (b) the Center for Consumer Education Services.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

		1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
				Part F—Consumer homemaking			Part B—Occupational home economics		
	1962-63 (fiscal year 1963) vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	15,041	33,893	761	85,147	28,716	8,514	6,667	3,333	(1)
Adult	(1)	15,993	428	32,000	6,500	(1)	3,710	1,237	(1)
Total	15,041	49,886	1,189	117,147	35,216	8,514	10,377	4,500	....

[1] Unknown.

NOTE.—153,272 enrollment in grades 5-8 not included in this figure nor elementary enrollments.

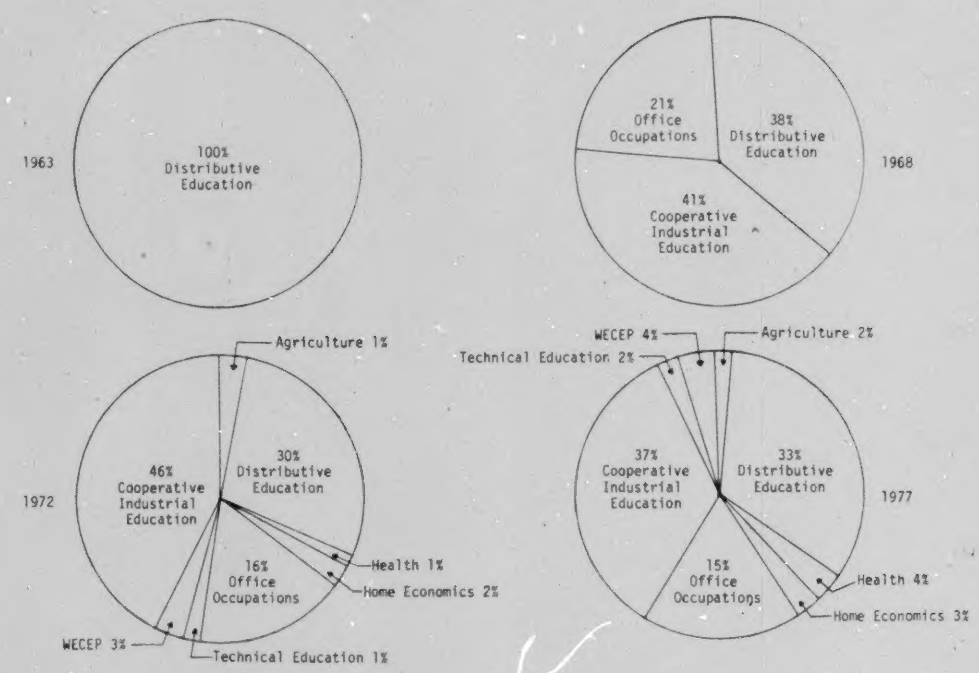
D. ENROLLMENT DATA, COOPERATIVE WORK EXPERIENCE PROGRAMS

	1963	1968	1972	1977
Agriculture	0	0	131	300
Distributive education	619	2,200	[1] 3,373	5,800
Health education	0	0	106	750
Home economics	0	0	238	500
Office occupations	0	1,200	1,868	2,600
Cooperative industrial education	0	2,400	[2] 5,234	6,500
Technical education	0	0	113	300
WECEP	0	0	306	600
Total	619	5,800	11,369	17,350

[1] From DE end of year report.
[2] From CIE end of year report.

NOTE.—Figures represent only those from funded programs.

THE PERCENTAGE DISTRIBUTION OF STUDENTS ENROLLED IN COOPERATIVE WORK EXPERIENCE PROGRAMS BY PROGRAM AREA FY's '63, '68, '72, '77



e. Work-Study Program

The work-study program provides jobs and wages to needy students who are between 15–20 years of age, and are enrolled in vocational education programs. The students work outside of the normal school hours. Many students work on jobs within the school system, however, employment may take place in any public agency.

The program has usually been conducted on a summer (July–August) basis. However, in 1972 a school year work-study program was implemented for the first time in 5 years.

Enrollment in the school year work-study program is projected to grow from 1,232 in 1972 to 1,650 by 1977.

Much of this increased enrollment has come about because of the expansion of special needs programs due to the "set aside" funding provisions. Students enrolled in the special needs vocational programs are now eligible to apply for work-study programs.

The coupled work-study concept is also expanding. This program allows the student to work half-time and spend half-time in training, it operates only during the summer months. Students are paid for the work portion only.

Approximately 5 percent of the work-study programs are coupled work-study.

The work-study programs have proven very popular with previously nonvocational (and therefore not eligible) students and have enabled many needy students to remain in school to finish their training.

Increased Federal funding is needed to meet the projected growth in enrollment in the work-study program.

ENROLLMENT DATA, WORK-STUDY PROGRAM

	1963	1968	1972	Projected 1977
Summer	0	1,744	1,993	2,600
Academic year	0		1,232	1,650

f. Research and Training

The funds which were made available to New Jersey under part "C" made it possible to continue and expand the operation of the Research Coordinating Unit.

This unit provided more and better services to education at the State and local levels so that the many and rapidly growing unmet needs in vocational education could be adequately met and solved.

Part "C" funds also made it possible for New Jersey to become one of the national leaders in the "Career Education" movement long before the term had gained any widespread acceptance. Much of the groundwork (Technology for Children, Introduction to Vocations, Job Placement Coordinators) which now forms the basic elements in practically all career education programs was researched and tested in New Jersey by the R.C.V.

Without the financial support provided by Part "C" much of this pioneer work could not have been accomplished. The continuation of these funds are essential if the total needs of all the children in New Jersey are to be researched, problems brought to light, and solutions field-tested, validated and the results disseminated throughout the country.

Two of our major efforts are outlined below:

Part C projects.—One of the more prominent research projects is the Vocational Education Planning System for Local School Districts: a 3-year project to design and install a strategic planning system for the use of the division and those educational agencies in the State that operate vocational-technical programs. Assisting the division in this project are the Edison Township School District, Somerset County Area Vocational-Technical School, Linden Area Vocational-Technical School and the New Jersey Vocational-Technical Education Curriculum Laboratory located at Rutgers University. The system development consultants to the project are staff members of Government Studies and Systems, Inc., a research and consulting firm of Philadelphia.

The goal of the project is to develop two related systems: First, a system to assist the division in the selection and creation of new projects and levels of financial support for programs in the LEA's; and second, a system adaptable to each LEA to assist it in what is needed in curriculum, staff, facilities, money, etc., in order to achieve the vocational education goals of the community. Through interactions between the Division's and the LEA's planning activities, it is believed that the resources available to vocational education will be invested in ways that best serve local and State objectives.

The process contains two major components. The first component is called strategic planning which differs from the most familiar kinds of program management in that its plans are in terms of several years, rather than 1 or 2 years, and strategic planners are concerned with results and outcomes, not just expenditures.

The second component of this process is the system approach which is a way of thinking about the planning process. In systematic educational planning, the purposes and goals of vocational education are expressed as specific measurable events. Once the policy makers have agreed to these specific goals, the planners and program developers generate designs or proposals for different ways of achieving the goals. Then, assisted by the electronic computer, the most economical alternative (one which achieves the goals in the least expensive way) is recommended for implementation.

New Jersey Occupational Resource Centers.—The New Jersey Occupational Resource Center located at Edison, N.J. has been in full operation for a period of 23 months (June 1971–April 1973). The Center has been totally supported from part C research funds made available under Public Law 90–576. Not only has the number of people using the center increased, but the resources and services offered has also expanded. This report will feature what has happened to these resources and services.

One of the new services is a mini-workshop one Saturday morning a month: the Career Education Media Series. The series, started in October 1972, has had as its main objective to provide a hands-on-experience of all types of media such as AV equipment and educational simulations. The programs to date have been:

October and November 1972—Films on Career Education.
December 1972—A hands-on-experience on the use of various equipment available for loan at the Center.
January 1973—Life Career, an educational simulation.
February 1973—A book exhibit of 800 elementary and secondary books.
March and April 1973—Consumer, an educational simulation.

Another new service is our Voices for Careers. Begun in January 1973, this is a collection of 502 cassetts from the center for cassette studies on various subjects related to career education. Individuals can use this service in two ways: (1) by borrowing the cassette from our circulating collection or (2) sending a blank cassette, or $1.50, for every cassette ordered and a duplicate of the master will be mailed free of charge. A total of 1,353 cassettes have been duplicated and sent from January–April 1973.

One of the center's goals is to provide a comprehensive information service to New Jerseyites. This is done in numerous ways and one of these is another new service initiated in the fall of 1972. Upon request, staff members will go to individual schools to tell groups about the many resources and services available at the Edison Center.

The staff also participates in numerous conferences throughout the State. Exhibits or materials are provided relating the many services and resources at the Center. Some of the conferences attended during September 1972 and April 1973 were: Fall Home Economics Conference; New Jersey PTA Convention; New Jersey School Boards Association; NJEA Convention; Joint Economic Conference; All Eastern Consumer Education Conference; American Association of School Administrators; New Jersey Vocational Arts Association; American Industrial Arts Association; and National Association of State Boards of Education—Northeast Area Conference.

Information about the center is also given in orientation tours at the center as well as at conferences and schools. Since June 1971, a total number of 141 groups have visted the center to receive such tours (fig. 1).

As a result of one visit from three individuals from the U.S. Department of Health, Education and Welfare, who were extremely enthusiastic about our operation, Dr. Sidney C. High, Jr., chief of the Program Development and Operations Branch, BAVTE/BVTE, issued a memorandum citing the center as an outstanding example of dissemination activity. The memorandum, which was sent to State vocational research officers, and RCU directors, stated, in part, the following: Attached is a paper describing the organization and operation of the New Jersey Occupational Research and Development Resource Center, which has emerged as an exemplary dissemination effort.

Although the center encourages groups to visit the center for orientation tours, individuals also use the center on a daily basis for research purposes. Since June 1971, a total of 8,959 individuals have visited the center in a group or on an individual basis (fig. 2).

One of the numerous reasons to visit our center, in addition to the fine collection of over 400 journals, book and document collection, and audio-visual collection, all available for loan, is the center's New Jersey Career Education Research Utilization System. This system has been in operation since the summer of 1971 and consists of three main parts. These are: (1) the entire ERIC collection on microfiche, available at the center, (2) the free microfiche duplicates of any of the ERIC documents supplied upon request, and (3) portable microfiche readers, available for loan from 63 different locations throughout the State.

The success of this system is clearly shown in the number of microfiche requested and sent, from 80 in June 1971 to 3,003 in April 1973 for a total of 41,887 for the 22 month period (fig. 3).

Another drawing card is our excellent collection of educational simulations/games available for loan. One purpose of the center is to provide innovative material to be used in a classroom situation, such as our voices for careers cassettes, mentioned earlier, or educational simulations. By having over 114 different simulations available for loan, teachers can try this new method to see how well it works without investing money for untried material. Not only are the games available for loan, but a file of evaulations of actual classroom use is maintained as well. The popularity of the simulations are shown in the circulation figures—415 from May 1972 to April 1972 (fig. 4). For the past 4 months almost 50 percent of the collection is in continuous circulation.

Publications play a large part in dissemination of information, and the center plays an active role in producing numerous publications. The resource centers continue to publish three publications on a regular basis. These are Feedback (quarterly), Career Education Progress (quarterly), and Current Research and Discussion in Vocational Education (bimonthly).

In addition to the regularly issued publications, the center has also initiated a new Learning Resources Series. A vital resource for schools throughout the State, the three publications provide a convenient approach to current multimedia resources for career education. Included are educational simulations, guidance kits, cassette tapes, filmstrips, filmloops, 16mm films, transparencies, professional books, and books for students. All materials listed were published from 1968 on. The series includes:

(1) Elementary School Learning Resources for Career Education.
(2) Grades 7, 8, and 9 Learning Resources for Career Education.
(3) Senior High Learning Resources for Career Education.

The center continues to publish the Special Paper Series. The papers published since June 1971 are:

"Career Development Programs for All: An Adaption of a Paper Presented before the Appalachian Regional Commission, September, 1969" (June, 1971).[1]

"Periodicals Helpful to Career Education" (October, 1971).[1]

"ERIC—An Information System With A Great Potential in Assisting Vocational Education in New Jersey; A Brief Introduction to a Basic Information Tool" (October, 1971).[1]

"Highlights of the Invitational Conference on the Governor's Career Development Program: August 2, 1971" (October, 1971).[1]

"Simulations and Career Education: A Discussion of Instructional Simulation Games for Programs of Career Education" (February, 1972).[1]

"Reflections on the Researchers' Conference in Vocational-Technical Education, October 29, 1971" (March, 1972).[1]

"Answers to Five Basic Questions About Career Education" (April, 1972).[1]

"Placement: The Ultimate Test of a School's Commitment to Its Students; a Brief Explanation of the Job Placement Programs" (April, 1972).[1]

"7th, 8th, and 9th Grade Exploration: The Shape of Career Exploration Programs Designed for Young Teens" (May, 1972).[1]

"Why Career Education? The Facts" (May, 1972).[1]

"Doctoral Dissertations Concerning Career Education, 1960–1971. A List of 781 Dissertations Related to Various Aspects of the Field of Career Education and Which are Available at the New Jersey Occupational Resource Center at Edison, New Jersey" (May, 1972).

"Technology for Children," a 3-year narrative report of technology for children . . . January 1, 1969 to December, 1971 (July 1972).

"Computerized Career Information for Improved Career Guidance Services; Key Information of Value to Educators Considering the Use of Such Systems" (June, 1972).[1]

"Apprenticeship Training and Career Education. Conflict or Consort?" An address at the Annual Eastern Seaboard Apprenticeship Conference, Boston, Mass. (June, 1972).[1]

"Voices for Careers," 502 cassette tapes of value to the career exploration of youth and adults, available from the New Jersey Occupational Resource Center in Edison (September 1972).[2]

"Grass-Roots Development of Curriculum for Career Education," specific procedures for nursery—adult career education curriculum development for all subjects, programs, and services in the local school (November 1972).

High priority and status for career education proposed by the President's Commission on School Finance (December 1972).

"System Commitment to K–6 Career Education," a strategy for implementing technology for children (April 1973).

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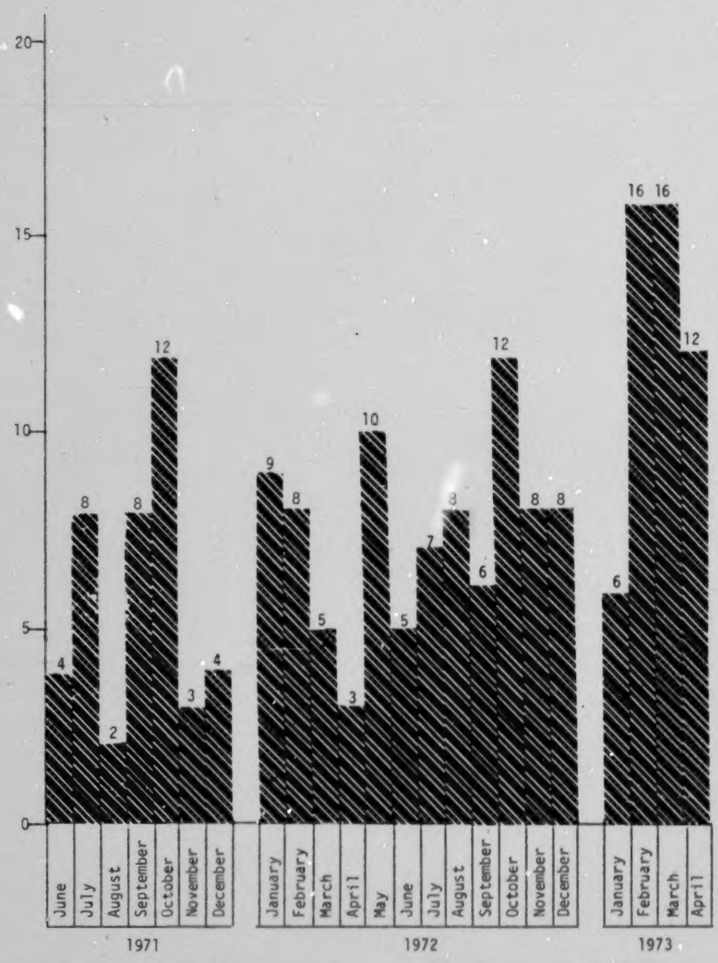
[1] These special papers are now included in the ERIC system designated by ED 069–892.

[2] This annotated catalog is also available in the ERIC System designated by ED 069–893.

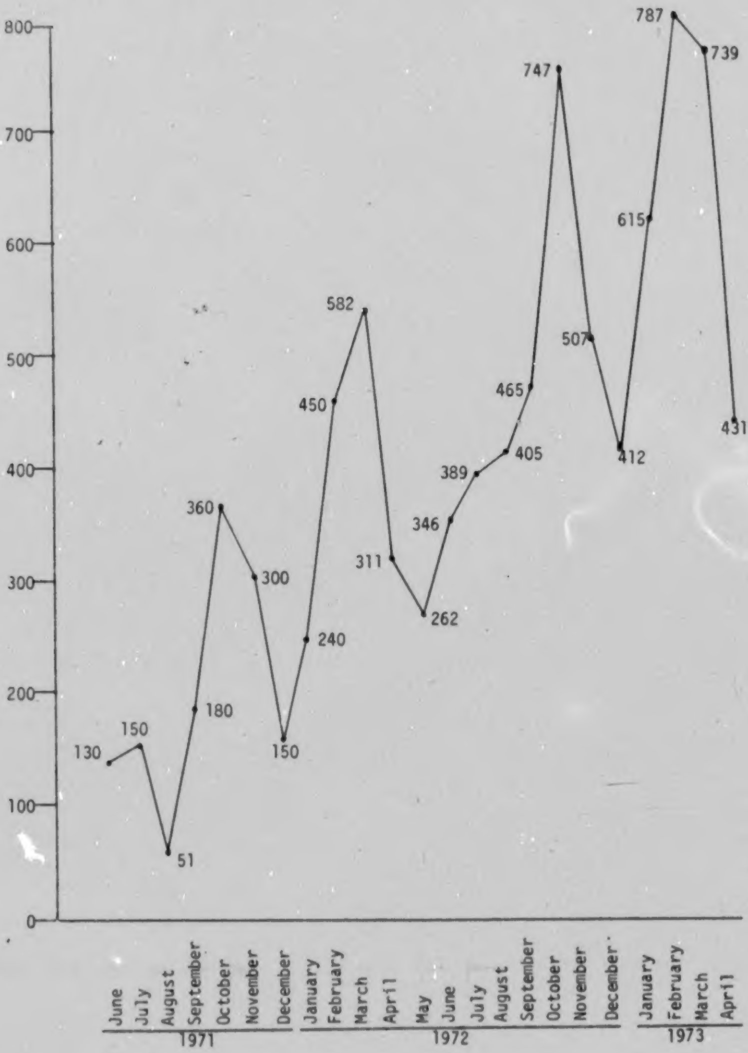
(Figure 1)

NUMBER OF GROUPS VISITING THE NEW JERSEY
OCCUPATIONAL RESOURCE CENTER FOR
ORIENTATION TOURS
(June, 1971 - April, 1973)



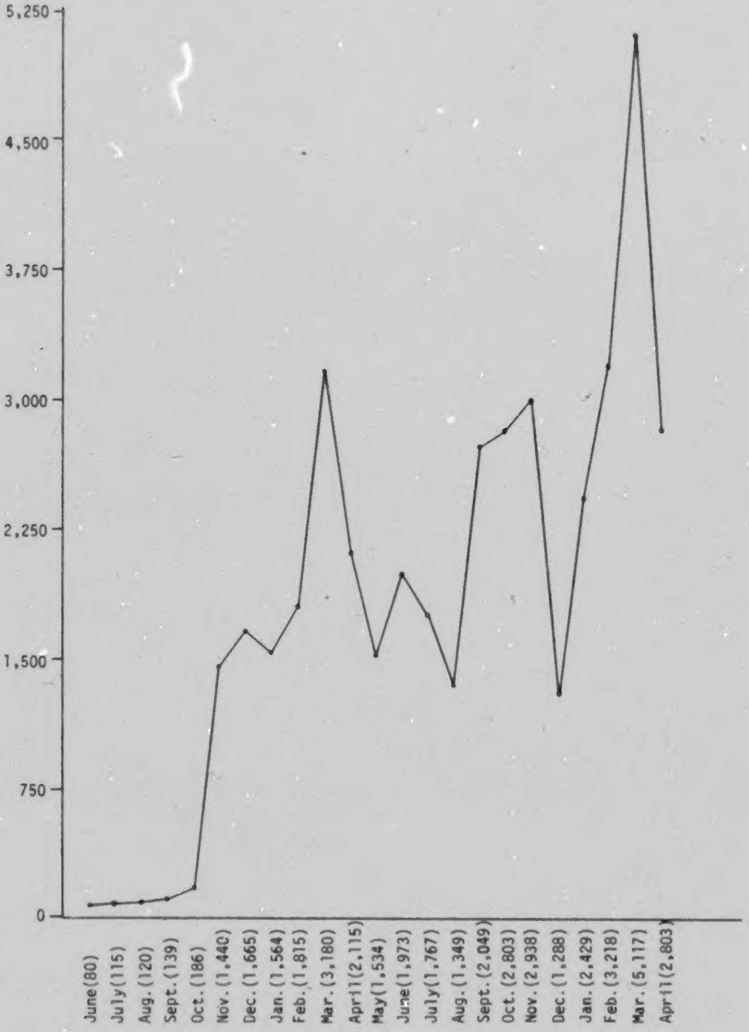
(Figure 2)

NUMBER OF VISITORS TO THE
EDISON CENTER (June, 1971 - April, 1973)



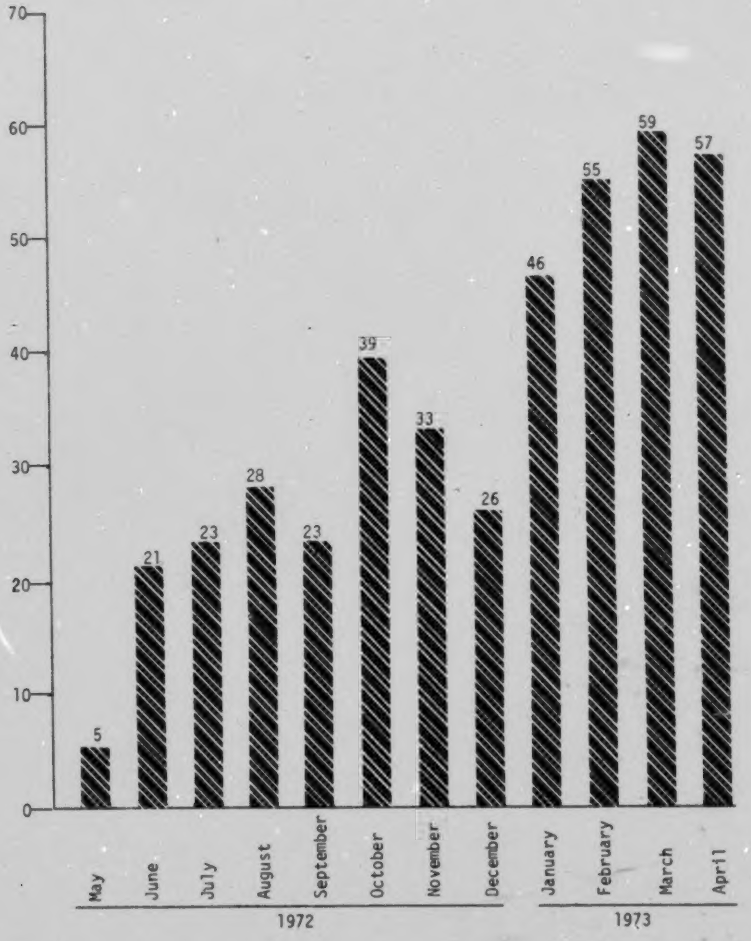
(Figure 3)

NUMBER OF MICROFICHE REQUESTED AND SENT
(June, 1971 - April, 1973)



(Figure 4)

NUMBER OF EDUCATIONAL SIMULATIONS LOANED
(114 Titles-Exclusive of Use at Conferences or by Staff)
May, 1972 - April, 1973



STATE ADVISORY COUNCIL

The New Jersey Advisory Council on Vocational Education has been in operation since 1966. It has served the division unofficially through its lay representatives up until the passage of Public Law 90–576, The Vocational Education Act Amendments of 1968. Most of the members of the original council were appointed by the Governor of New Jersey to serve on the legally constituted advisory council. Since 1968, the council has produced three annual reports which include 37 recommendations pertaining directly to vocational education programs, services, and activities.

In performing its duties of evaluating State vocational education and advising the State board of education on annual and long-range plans for vocational education, the council has discovered an emerging and essential role which it feels it must assume if it desires to continue and increase its effectiveness as an advisory agency. That role is serving as a catalytic agent in bringing together those who are involved, or who desire to become involved in vocational programs, services, and activities.

The council has found during the 1971–72 fiscal year that its duties are not completed once it has served as the agent to coordinate the efforts of various agencies interested in vocational education. In order to make coordination effective, this past year the council has gone one step further in creating the climate to develop the mechanisms which would insure a cooperative approach to vocational education in New Jersey. This effort has been so successful that the council's future plans for action include subcommittee activities which are expected to help implement council recommendations to the State board, to the board of higher education, and to the Governor.

The division of vocational education has moved in whole, or in part, on every recommendation of council. In some cases, progress has been delayed either because of personnel shortages or because the climate for full implementation of the recommendation is not appropriate.

Some of the most significant contributions which the council has made in assisting the division of vocational education in the performance of its duties, are those studies and recommendations which have brought about a greater awareness and understanding of our widening role and responsibilities to larger segments of New Jersey's population.

Those studies and recommendations include:

1. Strategies for developing a comprehensive and cost-effective master plan for vocational education;
2. Bringing to light the expanding needs of adults and those students involved in the postsecondary occupational and training area;
3. Promoting interest in the profit and nonprofit school sector in order to exhibit ways in which the profit school sector can contribute toward public vocational education and how essential it is for the nonprofit school sector to receive occupational training, for the general welfare of the New Jersey economic community;

4. Developing mechanisms and analysis of funding procedures in order to assist the division in the more equitable distribution of vocational education resources;

5. Addressing itself to problems of providing quality vocational teacher education; and

6. Taking steps to assure an adequate public information system for administrators, parents, and students in order to show the value of vocational education as a means of achieving a career and self direction.

These are only a few of the very active interests and contributions of the New Jersey Advisory Council on Vocational Education. The division of vocational education has involved itself to the highest degree possible with the council in implementing its interest. The division values the council's input.

SUMMARY AND RECOMMENDATIONS

Summary

As can be seen from this report, vocational education and career education, through continued support from the Federal Government, has experienced a very rapid and valuable growth rate in serving the people of New Jersey.

Disadvantaged and handicapped persons, after having had the opportunity to become productive citizens, through special vocational education programs, have proven the programs' worth in lessening or eliminating their previous status as burdens to an already overwhelmingly burdened society. Out-of-school youth and adults have been given the opportunity, previously not available, to improve their skills and become more employable through the increasing number of vocational programs. In addition, those students desiring a more concentrated and detailed curriculum have been able to enroll in postsecondary level vocational education programs at the vocational-technical schools and community colleges.

The recommendations that follow will show that much needs to be done to accomplish the objective to assist each person in reaching the level of vocational attainment to which he or she aspires and for which he or she possesses ability.

The constraints placed on the use of Federal funds have been: (1) The lack of meeting the appropriations level in the act; (2) the lateness of funding availability; (3) the lack of knowledge concerning the amounts of funds available; and (4) the funding on a yearly basis.

However, at this point in time, all the above constraints appear to be minor considerations since word concerning Federal funds to be appropriated and available and the method used for disbursement is anyone's guess. There are young people and adults in our programs today that should be benefiting from funding commitments that are known and that are assured for more than 1 or 2 years. These people pass through the institutions that provide vocational-technical education but once and if the resources are not available at the particular place and at the particular time, almost irrepairable damage may be done to an occupational and career objective.

In view of the tremendous strides that vocational educators have made in endeavoring to meet the needs, whatever the constraints, of approximately 83 percent of our labor force who are not at the professional level, the additional burden, although welcome, of initiating and implementing career education has been placed on vocational educators shoulders. This further has tended to spread our resources thinner and consequently has placed us in a position whereby we can neither do justice to or meet the needs of both vocational education and career education.

Recommendations

1. The Federal Government devise a way in which the dollar flow to the States can be assured. Example: The unanticipated cut in fiscal year 1973 moneys incurred by New Jersey and other States should never have happened. For fiscal year 1974, the States must be given at least a ballpark figure to anticipate in order to assure program continuity. Historically, the States, and consequently the local school people have been handicapped by the present fiscal policies of the Federal legislators and executive branch to the point where planning cannot be systematically accomplished. When funds are finally available, funding expenditures and deadlines are so constrained as to preclude the assurance that the funds have been spent wisely.

2. If vocational education moneys for fiscal year 1974 are to be maintained in a categorical distribution format from the Federal Government, then it would be wise for HEW to suggest various funding methods to the States that are not only acceptable to the Federal Government, but provide a fair and equitable distribution in terms of vocational needs.

3. Many States have financed and developed planning and funding systems. These systems vary from State to State, but all have basic similarities. An important suggestion would be to recommend that the Federal Government assume the financial obligation and develop a total State, county, and LEA planning system, and make such system available to the States for their use in total or modification without the States' incurring additional financial obligation.

4. Since funds under part I Curriculum are doled out from the Office of Education only, it is recommended that a certain percentage of this allotment be authorized to the States for meeting their priorities. It is a known fact that curriculum development is a most costly and creative aspect of education, yet funds for this vital element, particularly in career education and vocational education are inadequate. That which is available is usually given to contractors or single individuals whose work takes years to complete while individuals move through our schools and training institutions subject to curriculum developed years ago. A faster process and a supplement to the above would be to allow the States to make curriculum grants also.

5. With the increasing role of vocational education and the new thrust in career education, personnel development is inadequately funded. It is recommended that a substantial increase in EPDA funds be authorized and appropriated to help alleviate the burden placed upon State and local governments to prepare personnel in

these two areas. Also, it is recommended that not all the funds in this category be under the authorization of the personnel in Washington.

6. New Jersey has, as have other States, developed county systems of vocational education. In New Jersey, county area vocational-technical school districts are assisted with State and Federal moneys for facilities construction purposes. It would appear wise for the Federal Government to identify, as a separate entity, moneys for construction purposes to provide for facilities development throughout the Nation. Over the years, the States have used part B moneys for construction which allows little for program development.

7. If career education is to be truly a national priority in education, then moneys must be authorized to be disbursed under the Federal acts to local school districts operating such programs. No longer can funds, inadequate in the main, earmarked for vocational education, be siphoned off and used to inadequately fund the thrust in career education. Funds for career education must be granted from sources other than the vocational areas.

8. The area of apprenticeship training needs to be thoroughly examined at the Federal level, both in terms of financial support and the authority of the individual States. The law provides much authority to the Federal Government in this area. However, the States, through the implementation of State Apprenticeship Councils and the authority vested therein, have confused the area of apprenticeship training. Apprenticeship programs in many schools have not kept abreast of the changing times. In addition, community colleges, arear vocational-technical schools, and industry often compete for the same students for the very same apprenticeship program. A study should be funded which would review the form and structure of apprentice programs with an eye to ascertaining whether they meet the needs of a large enough population, whether the approach is really productive, and whether there are other more effective and efficient ways for a person to qualify for journeyman status.

9. The placement of the manpower programs in Departments of Education, coupled with the growth of vocational education over the past 10 years, is just now beginning to show results. The consolidation of efforts, such as vocational education and manpower, strengthens both programs and should be maintained in order to reap the benefits of years of planning and development.

10. There should be a very close correlation between the manpower and the vocational education programs in spite of the fact that legislation is from two separate sources. The system as presently constituted, attracts a minimal amount of political activity in educational matters since the operation of programs are in the hands of professional vocational educators.

11. The confusion over postsecondary vocational education and adult vocational education, including the role of area vocational-technical schools and county coleges, appears to be becoming more complex across the Nation. The U.S. Office of Education must provide guidelines in this area in order to delineate program responsibility and authority to the institutions involved.

12. Funding of postsecondary programs for fiscal year 1974 must be examined in terms of those moneys authorized under the Higher Education Act, and the authority of the State boards of vocational education among the States. It is recommended that a careful scrutiny of funds going into postsecondary be made with an eye to relating this high fund practice to the Nation's needs and priorities.

13. It is recommended that research money (pt. C) and exemplary moneys (pt. D) be released to the States as originally proposed in the Amendments of 1968 and that a substantial increase be provided since the present inadequacy short-circuits the effective work of the Research Coordinating Unit. That short-circuit exists in the resources needed to train local people to carry on, to interpret, to adapt, and to implement research findings at the local level.

14. It is recommended that contractors to the National Institute for Education (NIE) and other Federal agencies be required to submit to the Federal Government, all information, narrative, statistical, and media such as TV tapes, cassettes, films, slides, etc., derived from a government funded project and that no copyright be allowed for this material which by the right of funding used is in the public domain and for which they have received and accepted public moneys.

15. It is further recommended that the comprehensive career education model material developed at Ohio State University and locked up by NIE be immediately released to the States for additional testing and implementation.

16. Since the Federal Government is considering regulations for the funding of industrial arts and volunteer fireman training programs, it is recommended that the States retain decisionmaking authority in terms of including or not including the above-mentioned areas in their funding systems unless funds beyond those necessary to meet the categorical authorizations in other areas are supplemented for this purpose.

17. The U.S. Office of Education, through its regional offices, should provide an on-going financial and management audit, though not prescribed by law. At the present time, States must request an audit in order to receive this service. This should be done on a yearly basis so that massive time-consumming audits going back several years with its attendant problems will no longer be a horrendous experience.

NEW MEXICO

State Director—James B. West

INTRODUCTION

As was true with most of the States, New Mexico had significant increases in vocational enrollments in 1968 and 1969 due to increased levels of Federal funding. Since 1969, the enrollments have stabilized at a 3-to 5 percent increase per year. The proposed 10 year plan for vocational education projects that by 1983, 80 percent of the State's students will be enrolled in vocational courses.

a. Job Training Enrollments

JOB TRAINING ENROLLMENTS BY JOB TRAINING AREA AND BY HIGH SCHOOL POSTHIGH SCHOOL AND ADULT FOR FISCAL YEARS 1968, 1972, 1977

Job training area	1968	1972 High school	1972 Post high school	1972 Adult	1977
Agriculture	3,045	3,981	56	112	4,950
Distributive education	1,700	1,414	229	200	2,160
Health	924	432	782	324	2,700
Consumer and homemaking	10,875	17,026	0	0	27,000
Office education	10,133	11,470	2,050	2,400	12,615
Technical	816	0	656	40	1,074
Trades and industry	3,806	3 596	1,076	3,625	9,960

b. General Description

c. Not Available

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS, LABOR DEMAND AND SUPPLY SUMMARY

OE code	Instructional program	Current employment	Projected expansion and replacement needs		Projected labor supply			
					Vocational education output		Other sectors output	
			1974	1978	1974	1978	1974	1978
01.0100	Agriculture production	17,119	(188	(188)	260	0	0	0
01.0200	Agriculture supplies/services	5,700	331	331	172	250	0	0
01.0300	Agriculture mechanics	512	18	18	12	15	0	0
01.0500	Ornamental horticulture	1,420	107	107	80	85	0	0
	Total	25,380	268	268	524	350	0	0
04.0100	Advertising	243	14	14	13	13	0	0
04.0200	Apparel and acc	1,383	80	80	42	75	0	0
04.0300	Automotive	3,194	185	185	109	150	0	0
04.0400	Finance and credit	2,385	141	141	27	150	0	0
04.0500	Floristry	(1)			14	14	0	0
04.0600	Food distribution	4,019	233	233	45	150	0	0
04.0700	Food services	3,908	293	293	87	200	40	40
04.0800	General merchandise	4,038	234	234	179	150	32	50
04.0900	Hardware	1,552	90	90	32	75	0	0
04.1000	Home furnishings	1,929	112	112	23	75	0	0
04.1100	Hotel, lodging	(1)			3	8	6	15
04.1200	Industrial marketing	816	47	47	13	30	0	0
04.1300	Insurance	2,571	149	149	5	100	0	0
04.1400	International trade	(1)			0	0	0	0
04.1500	Personal services	2,453	108	108	10	75	0	0
04.1600	Petroleum	3,627	116	116	54	75	0	0
04.1700	Real estate	1,896	110	110	51	50	46	50
04.1800	Recreation and tourism	(1)			15	15	0	0
04.1900	Transportation	1,120	56	56	40	40	0	0
04.2000	Other retail trade	(1)			200	200	0	0
04.3100	Other wholesale trade	(1)			16	16	0	0
	Total	35,134	1,968	1,968	975	1,661	54	155

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS, LABOR DEMAND AND SUPPLY SUMMARY—Continued

OE code	Instructional program	Current employment	Projected expansion and replacement needs		Projected labor supply			
					Vocational education output		Other sectors output	
			1974	1978	1974	1978	1974	1978
07.0101	Dental assistant	439	43	43	65	35	50	100
07.0301	Nurse, associate	600	71	71	100	50	25	50
07.0302	Nurse, LPN	928	110	110	115	100	35	25
07.0303	Nurse, assistant	3,355	396	396	440	300	70	70
07.0399	Ward clerk	245	16	16	20	10	15	30
07.0903	Inhalation therapist	90	6	6	20	5	5	10
07.0904	Medical assistant	511	34	34	30	20	25	50
07.0907	Emerg. medical technician	(1)			36	36	0	0
07.0908	Hosp. food serv. supvr	570	54	54	30	30	10	15
07.[illegible]	Med. engr. technician	7	10	25	22	25	0	0
	Total	6,745	740	755	878	611	235	350
09.0109	Home furnishings	(1)			95	95	0	0
09.0201	Care and guidance of children	2,386	203	203	82	175	0	0
09.0202	Clothing management, production and services	2,215	109	109	45	75	0	0
09.0203	Food management, production, and service	5,625	377	377	109	200	0	0
09.0205	Institutional and home management	1,318	84	84	58	25	0	0
09.0299	Other occupational preparation	(1)			470	470	0	0
	Total	11,544	773	773	859	1,040	0	0
14.0100	Accounting	13,899	1,084	1,084	240	500	199	500
14.0200	Business data processing	1,995	140	140	158	100	145	250
14.0300	Clerical	20,272	1,176	1,176	3,652	500	353	575
14.0700	Secretarial	12,422	981	981	1,595	400	166	310
	Total	48,487	3,341	3,341	5,645	1,500	863	1,635
16.0106	Civil technology	2,056	64	64	30	65	0	0
16.0108	Electronics technology	1,959	61	61	85	65	0	0
16.0109	Electromechanical technology	436	14	14	38	15	0	0
16.0113	Mechanical technology	299	9	9	40	10	0	0
16.0117	Scientific data processing	504	16	16	185	15	0	0
16.0119	Engineer related technology	600	19	19	75	15	0	0
	Total	5,854	183	183	453	185	0	0
17.0100	Air-conditioning and refrigeration	424	15	15	40	0	40	80
17.0200	Appliance repair	716	25	25	12	0	25	75
17.0301	Auto body repair	580	22	22	40	0	30	30
17.0302	Auto mechanics	4,620	176	176	333	100	40	40
17.0401	Aircraft mechanics	464	16	16	70	15	0	0
17.0500	Business machine repair	364	21	21	15	15	0	0
17.1001	Carpentry	4,011	221	221	120	200	10	22
17.1002	Electricity	2,098	94	94	36	50	20	35
17.1004	Masonry	581	28	28	15	25	0	0
17.1007	Plumbing and pipefitting	1,933	60	60	15	50	0	0
17.1100	Custodial services	10,118	506	506	6	50	0	0
17.1200	Diesel mechanics	1,246	44	44	15	40	0	0
17.1300	Drafting	1,514	48	48	146	45	20	40
17.1502	Electronics	1,891	59	59	190	0	150	150
17.1900	Printing	913	28	28	28	20	0	0
17.2100	Watch repairmen	214	7	7	8	4	20	40
17.2301	Jewelry manufacturing	421	18	18	20	10	0	0
17.2302	Machine shop	2,129	77	77	43	60	0	0
17.2601	Barbering	919	60	60	12	30	0	0
17.2602	Cosmetology	2,489	162	162	22	0	125	180
17.3205	Sheetmetal work	572	19	19	15	15	0	0
	Total	38,217	1,706	1,706	1,201	729	480	692

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[1] Information not available.

d. Disadvantaged Students

DISADVANTAGED STUDENTS

	1968	1972	1977
Regular	3,515	4,928	5,667
Special needs	(1)	19,707	21,677

[1] Not available.

e. Handicapped Students

HANDICAPPED STUDENTS

	1968	1972	1977
Regular	280	654	719
Special needs	(1)	625	688

[1] Not available.

f. Adults

ADULTS

	1968	1972	1977
Unemployed in need of job training	951	720	792
Employed and in need of job retraining	4,516	5,505	6,055
Preparatory training programs	951	720	792
Regular training programs	0	1,693	1,862

NOTE.—Enrollment comparisons not available.

g. Financing

(i) *Allocation of funds to part B purposes.*—In developing its annual plans, the State board will take into consideration and describe in terms of quantifiable data and information: (1) the characteristics of persons to be served, (2) estimates and enrollments, (3) manpower needs, (4) available staff resources, (5) administrative and other related ancillary supportive services, (6) vocational guidance and counseling service needs, and (7) area school construction needs.

A. *Target clientele.*—Funds appropriated under part B of the act will be used for vocational education for:

(1) Persons in high school.

(2) Persons who have completed or left high school and who are available for study in preparing for entering labor market.

(3) Persons who have already entered the labor market and who need training or retraining to achieve stability or advancement in employment.

(4) Disadvantaged persons.

(5) Handicapped persons.

B. *Programs, services and activities.*—Programs, services and activities to be provided by the State board shall include: (1) vocational guidance and counseling designed to aid vocational education students in the selection of and preparation for employment in all vocational areas, (2) vocational teacher education and training, (3) program evaluation, (4) development of instructional materials, (5) special demonstration and experimental programs, (6) State and local administration and supervision, and (7) vocational training through arrangements with private, nonprofit vocational institutions which can make significant contribution to attaining the objectives of the State-Plan.

3.11 *Percentage Requirements.*—The State board assures that allocations of Federal funds will comply with the following percentage requirements: 15 percent for disadvantaged, 10 percent for handicapped, and 15 percent for postsecondary, all under part B funds.

3.11-1 *Application of Percentage Requirements:*

A. *Vocational education for disadvantaged persons.*—At least 15 percent of the total allotment for any fiscal year to the State of funds appropriated under section 102(a) for part B of the act or 25 percent of that portion of the State's allotment which is in excess of its base allotment, whichever is greater shall be used only for vocational education for disadvantaged persons.

B. *Postsecondary vocational education.*—At least 15 percent of the total allotment for any fiscal year to the State of funds appropriated under section 102(a) for part B of the act or 25 percent of that portion of the State's allotment which is in excess of its base allotment, whichever is greater, shall be used only for postsecondary vocational education.

C. *Vocational education for handicapped persons.*—At least 10 percent of the total allotment for any fiscal year to the State of funds appropriated under section 102(a) for part B of the act shall be used only for vocational education for handicapped persons.

3.12 *Classification System for the Disadvantaged.*

3.12-1 The classification system for the disadvantaged is designed to include all persons who have academic, socioeconomic, or other handicaps that prevent them from succeeding in a regular vocational education program. In order to assist an individual to succeed, one or more of the allowable special services should be provided to maximize the likelihood of his successful completion of a vocational program.

To be eligible for special vocational programs, program modifications, and related services under the 15 percent set-aside funds for the disadvantaged, an individual shall fulfill the following conditions:

He is excluded from a regular vocational program because of the effects of a disadvantagement, or

He shows evidence of being unable to succeed in a regular vocational program because of the effects of a disadvantagement, and

The effects of the disadvantagement are identified by a qualified professional person (teacher, counselor).

3.12–2 *Types of Handicaps Referred to for Classifying Disadvantaged Persons Are:*

A. *Academically disadvantaged.*—These individuals are not succeeding or cannot succeed in a regular vocational education program because of at least one educational deficiency.

1. *Language (speaking/comprehension) deficiency.*—Individuals in this group experience sufficient difficulty with verbal communication that their capacity to learn is significantly reduced. Persons in this category may have one or more of the following characteristics:

Poor speech and/or limited formal English vocabulary; inability to use the formal language effectively in school; and serious language difficulties in any language.

2. *Reading and/or writing deficiency.*—Individuals in this group experience sufficient difficulty with reading and writing that their capacity to learn is reduced significantly. Persons in this category may have one or more of the following characteristics:

Poor reading ability and limited formal vocabulary; and inability to write or communicate in writing.

3. *Computational deficiency.*—These individuals have an educational background in mathematics which is not adequate to perform at the level required by the vocational education program. Persons in this category may have one or more of the following characteristics:

Serious difficulties in comprehending computational concepts; and insufficient computational skill to compete effectively with peers.

4. *General educational deficiency.*—Individuals in this group have educational deficiencies which are principally responsible for their inability to succeed; and persons in this category may have one or more of the following characteristics:

Low achievement scores.
Poor attendance records.
School dropouts.
Potential school dropouts.
Unaware of education procedures and/or opportunities.
Lacks parental support and guidance because of parents' own lack of education.

B. *Socioeconomic or other nonacademic effect.*—These individuals, because of their background or experience, have developed attitudes which severely limit their ability to perform successfully in a vocational education program.

1. *Passive or apathetic attitude.*—Individuals in this group exhibit unusual lack of participation in and response to the learning situation.

C. *Economically disadvantaged.*—Individuals in this group are not succeeding or cannot succeed in a regular vocational education program for one or more economic reasons. The effects tend to be clear and obvious to a vocational educator, and the countermeasure may require joint efforts with welfare and similar personnel. Persons in this category may have one or more of the following characteristics:

Geographically isolated; needs economic assistance to enter or stay in school; and is unemployed or underemployed.

D. *Other remediable effects (specify).*—This "catch-all" category should be restricted to special situations of a local individualized nature; the effect of disadvantagement should be specified.

3.12–3 Disadvantaged persons will be identified and recruited through the cooperative efforts of the State board and local educational agencies, with such agencies, organizations and institutions concerned with disadvantaged persons, such as welfare agencies, community action programs, public health agencies, and private organizations.

3.3 *Classification System for the Handicapped.*

3.13–1 The classification system for the handicapped is designed to include all persons with a physical or mental handicap who cannot or are not succeeding in a regular vocational education program. In order to assist an individual to succeed, one or more of the allowable special services should be provided to maximize the likelihood of his successful completion of a vocational program.

To be eligible for special vocational programs, program modifications, and related services under the 10 percent set-aside funds for the handicapped, an individual should fulfill the following conditions:

> He meets the criteria for classification as handicapped which have been established by the State educational agency for the categories included in the definition in the Vocational Education Amendments of 1968.
>
> He is diagnosed and classified by qualified professional persons.
>
> He is unable, because of his handicapping condition, to succeed in vocational programs designed for persons without such handicaps.

3.13–2 *Types of handicaps referred to for classifying handicapped persons are:*

A. *Mentally retarded.*—Individuals are considered to be mentally retarded when their rate of intellectual development is significantly less than the normal rate and their potential for academic achievement is estimated to be markedly less than that expected of persons with a normal rate of intellectual development.

Criteria for inclusion in these categories require professional diagnosis in which conditions, such as hearing loss, visual handicaps, emotional handicaps, learning disabilities, language handicaps, social and cultural deprivation, are ruled out as the primary cause of lack of ability to succeed.

1. *Educable retarded.*—Individuals in this group have a rate of intellectual development which is approximately 45 to 75 percent of normal. They can be expected to achieve maximally at the sixth grade level in academic work. However, they can be educated and trained to enter the world of work in positions which formerly may have been considered beyond their capabilities.

The rate of intellectual development, and other criteria for inclusion in this category, must be that which is specified by State regulations.

2. *Trainable retarded.*—Individuals in this group have a rate of intellectual development approximately 25 to 50 percent of normal and respond more slowly to education and training than do the educable retarded. Many can be trained for jobs which require single skills and in which adequate supervision is provided.

The rate of intellectual development, and other criteria for inclusion in this category, must be that which is specified by State regulations.

B. *Learning disability.*—Individuals with this handicap exhibit a disorder in one or more basic psychological processes involved in understanding or using spoken or written language. These processes may be manifested in disorders of listening, thinking, talking, reading, writing, spelling, or simple computing. The term includes conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, development asphasis, etc. This category does not include learning problems which are primarily because of visual, hearing, or motor handicaps, mental retardation, emotional disturbances, or environmental disadvantages.

C. *Seriously emotionally disturbed—Mental illness.*—Individuals with this handicap suffer from psychiatric disturbances which limit their ability to govern their own behavior. These disturbances are of such a nature and severeity as to require one or more special educational or other type of services.

D. *Orthopedically handicapped (crippled).*—These individuals have a limited ability in self-mobility, sitting in a classroom, and/or using materials or equipment for learning because of muscular, skeletal, or neuromuscular impairment.

E. *Visually handicapped.*—These individuals are severely limited in their ability to see. State laws and regulations establish the criteria for diagnosis and classifications of visual disabilities.

1. *Partially sighted.*—Using the criteria specified by the State, include in this group those individuals whose vision is limited even with correction to the extent that modifications must be made in program, equipment, materials, and/or facilities if they are to be able to succeed in the vocational program.

2. *Blind.*—State laws define legal blindness. The extent of the visual disability is severe. Usually, the visual handicap is such that the individuals must depend, to a large extent, on his senses of touch and hearing rather than on his sense of sight.

F.—*Hearing impaired.*—Individuals in this group have a sense of hearing that is inadequate for success in the learning situation. State laws and regulations establish the criteria for diagnosis and classification of hearing disabilities.

1. *Hard of hearing.*—Individual can hear and understand speech, but with difficulty. The speech must be loud and the individual must use a hearing aid, or lipreading along with a hearing aid, to supplement his own hearing.

2. *Deaf.*—Even with the amplification of sound provided with a hearing aid, the individual is unable to hear and recognize all speech sounds.

G. *Speech impaired.*—These individuals have speech patterns that differ from the normal to an extent which is noticeable. Some speech disorders are articulatory, vocal, stuttering, delayed speech, and speech disorders associated with cleft palate, hearing impairment, or cerebral palsy.

H. *Other health impaired.*—This group of individuals have limited strength, vitality, and alertness because of chronic health problems such as heart conditions, tuberculosis, rheumatic fever, nephritis, infectious hepatitis, infectious mononucleosis, asthma, hemophilia, epilepsy, leukemia, diabetes, and other illnesses.

J. *Multihandicapped.*—Individuals in this group have a combination of handicapping conditons, each of which must be considered in planning programs or program modification.

3.13–3 Handicapped persons will be identified through cooperative efforts and arrangements with the appropriate State agencies that have responsibility for the education and/or training of the handicapped, such as vocational rehabilitation and the special education division of the State department of education. Techniques for identifying such persons include such test instruments as "The Gordon Personal Profile," "The Adjective Check List," "Behavior Preference Record," "Mooney Problem Checklist," and "Classroom Teacher's Evaluation Report."

3.14 *Manpower needs and job opportunities.* The State board will analyze labor market data from sources such as the State employment security commission, private employment agencies, local surveys, State surveys, national surveys, employers, employees, professional organizations, employer organizations, employee organizations, State manpower planning council, public agencies and others in identifying current and projected man-power needs and job opportunities.

Consideration of the information and data obtained through coopeative arrangements as described in 3.26–1 and periodic evaluations will be reflected in the annual and long-range plans.

Data contained in the annual local application will be considered in meeting the manpower needs in allocation of funds to the several purposes in developing an annual plan.

3.15 *Vocational education Needs of groups to be served.*

3.15–1 Factors which will be given due consideration by the State board in determining allocation of funds for vocational education for various population groups will include: (1) The intensity of need for funds, (2) reasonable expectation of success of programs and activities, (3) the availability of State funds for financing vocational education, (4) the number of persons in each of the several population groups to be served, particularly the disadvantaged and handicapped, and (5) the job opportunities that exist in the community, area and State. Needs of the groups to be served will also include provisions under 3.11, 3.12, 3.13, and 3.26 of this plan.

3.15–2 Population groups which will be served are:

(1) Persons in high schools.

(2) Persons who have completed or left high school who require preparation for entering the labor market.

(3) Persons who have already entered the labor market.

(4) Disadvantaged persons.

(5) Handicapped persons.

Priority will be given those programs which can serve the greatest number of persons in areas of greatest manpower needs.

3.15–3 Results of periodic vocational education program evaluations will be considered by the State board in determining the vocational education needs of all population groups.

3.2 *Allocation of funds among local educational agencies for programs, services, and activities.* The State board will allocate funds within the percentage requirements of the act for disadvantaged persons, postsecondary vocational education, handicapped persons, and consumer and homemaking education and within the statewide matching requirements, except when a waiver of percentage requirements has been obtained.

3.21 *Local application.* The local educational agency will prepare and present to the State board a plan of vocational education (see copy of local application form attached in appendix). The plan will show annual needs and a 5-year projection including the following items:

A. Vocational programs, services and activities to meet the needs.

B. Objectives of programs and provisions for evaluation.

C. Estimated costs of programs, services and activities.

D. Population groups to be served in the geographic service area.

E. Manpower needs and job opportunities.

F. Special programs planned.

G. Evidence of consultation with local business committees and others, including cooperative area manpower planning system.

H. Statements of unusual circumstances on situations affecting the local plan for proposed programs, services and activities.

3.22 *Procedures for processing local applications for vocational programs, services, and activities.*

3.22–1 *Programs, services and activities undertaken by the state board:*

A. *Projects undertaken by the State board.*—Each proposal by the State board is to be submitted to the State board in sufficient detail to allow satisfactory appraisal of its contributions to the purposes of the act and to training and retraining needs of the State and its people. Applications must include all information necessary for justification of criteria listed in 3.26 and 3.27.

B. Each proposal will be reviewed by the vocational staff of the State board to determine that the regulations governing the financing have been met; that it is appropriate and feasible in terms of the stated purposes of the project and that it contributes to the purposes of the act.

3.22–2 *Programs, services, and activities undertaken by local educational agencies.*

A. *Application by local educational agency.*—Each proposal by a local educational agency is to be submitted to the State board in sufficient detail to allow satisfactory appraisal of its contributions to the purposes of the act and to the training and retraining needs of the State and its people. Applications must include all information necessary for justification.

B. *Action by the State board.*—When submitted by a local educational agency, a proposed project will be reviewed by the vocational staff of the State board to determine that the regulations governing the financing have been met; that it is appropriate and feasible in terms of the stated purposes of the project and that it contributes to the purposes of the act.

3.22-3 Coordination with other State agencies: Coordination with other State agencies is described in the cooperative arrangement agreements in 1.7.

3.23 *Procedures for processing local applications for construction*.

3.23-1 *Projects undertaken by the State board:* Each proposal submitted by a State area vocational school, as approved by the State board of education, shall be forwarded to the assistant State superintendent for vocational education for review and study by appropriate staff personnel designated. Applications shall be in sufficient detail for a satisfactory appraisal of their contributions to meeting objectives of the State plan. Only such projects where matching funds are available shall be considered for approval. The assistant State superintendent for vocational education shall recommend those projects to the State board for its action.

3.23-2 *Projects undertaken by local educational agencies:* Proposals or applications by local educational agencies shall be submitted to the assistant State superintendent for vocational education for review and study by appropriate staff personnel designated. Application shall be in sufficient detail for a satisfactory appraisal of its contribution to meeting objectives of the State plan. Only such projects were matching funds are available and which meet eligibility criteria of designation as area vocational schools shall be considered for approval. The assistant State superintendent for vocational education shall submit applications which meet applicable criteria and provisions of the State plan pursuant to construction projects to the State board for its action.

3.23-3 *Coordination with other State agencies:* Each application shall be checked with the appropriate State agency to determine that the construction project is not in conflict with any rules and regulations thereof. Clearance from and coordination with State agencies and initiating State board projects for construction or approving local construction projects shall include: State fire marshal, who is responsible for safety features, avoidance of fire hazards, etc., and State department of health, which is responsible for sanitary and related standards in public buildings.

3.24 *Maintenance of effort.* No payment(s) of Federal funds will be made in any fiscal year to any local educational agency unless the State board of education finds that the combined fiscal effort of the local agency and the State with respect to the provisions of vocational education by that local agency for the preceding fiscal year was not less than such combined fiscal effort for that purpose for the second preceding fiscal year. A combined fiscal effort in the preceding fiscal year shall not be deemed to be a reduction from that in the second preceding fiscal year unless the per pupil expenditure for vocational education from State and local funds in the preceding fiscal year is less than that in the second preceding fiscal year by more than 5 percent.

Exception to this policy caused by unusual circumstances that could not be fully anticipated or reasonably compensated for by the local educational agency may be considered by the State board of education upon written request by the local educational agency.

Under no circumstances will Federal funds be made available under part B of the act supplant State or local funds, but instead will be so used as to supplement and to the extent practicable, increase the amount of State and local funds that would in the absence of such Federal funds be made available for the purposes of part B of the act.

3.25 *Matching.*

3.25-1 *Overall State matching:* The State board shall allocate Federal funds allotted to it under part B of the act among local educational agencies in a manner which will result in at least $1 of the State and local funds being expended for each dollar of Federal funds expended under the State plan for vocational education programs, services and activities under part B of the act, but not in a manner which requires local educational agencies to match Federal funds at a percentage ratio uniform throughout the State. Federal funds under part B will be allocated in a manner which takes into consideration the criteria in section 3.26 of this plan.

3.25-2 *Reasonable tax effort:* No local educational agency with taxing authority which is making a reasonable tax effort will be denied funds for the establishment of new vocational education programs solely because it is unable to pay the non-Federal share of such programs.

A. The State board will utilize the procedure outlined in 3.26-3 in determining the tax effort of a local educational agency. The local educational agency's effort shall be considered reasonable whenever it is equal to or greater than the State average tax effort.

B. The data for the formula will be updated annually. The data will be taken from the Division of Statistics, New Mexico State Department of Education, and from data received from the chief of public school finance, Department of Finance and Administration.

3.26 *Criteria for determining relative priority of local applications.* The relative priority of local applications will be determined in terms of manpower needs, job opportunities, differences in vocational education needs, relative ability to pay and the relative costs of programs, services and activities.

3.26-1 *Manpower needs and job opportunities:* In allocating funds among local educational agencies, due consideration shall be given to information regarding current and projected manpower needs and job opportunities, particularly new and emerging needs and opportunities on the local, State and national levels. The New Mexico Employment Security Commission shall be consulted, on a continuous basis, for assistance in making these determinations. In addition, the State advisory council, other agencies and organizations shall be relied upon for information and data concerning the identification of current and projected manpower needs and job opportunities.

Applications by local educational agencies shall provide an analysis of current and projected manpower needs and job opportunities in the geographic service area as determined by surveys or data collected or made available. Particular consideration shall be given to local educational agencies whose proposed vocational eduational programs are designed to:

A. Meet the current or projected manpower needs in existing occupations at the local level by preparing students for such current and projected job opportunities available in occupations specified.

B. Meet the demands created by new and emerging occupations by preparing students for job opportunities in such new and emerging occupations.

Data shall be evaluated and studied for implementing best possible ways for training programs to meet those needs for trained manpower and job opportunities. Long-range manpower and job opportunity projections based on the most reliable sources of data available will be carefully considered for incorporation into part II, long-range program plan provisions.

3.26–2 *Vocational education needs:* In allocating funds among local educational agencies, due consideration shall be given to the relative vocational education needs of all the population groups referred to in 3.15 in all geographic areas and communities in the State and particularly to disadvantaged persons, handicapped persons and unemployed youth.

In weighing the relative vocational needs of the State's population groups, due consideration shall be given to additional financial burdens, other than those considered in 3.26–4 which may be placed upon certain local educational agencies by the necessity of providing vocational education to students, particularly disadvantaged and handicapped students, with special services such as compensatory or bilingual education, which are not needed in areas or communities served by other local educational agencies in the State.

The identification of vocational education needs, including the need for special education programs for handicapped and disadvantaged persons, shall be a continuous function of the Division of Vocational Education. Specific responsibilities shall be assigned to members of the State staff by the assistant State superintendent for vocational education that include periodic assessments of the vocational education needs on the State level. Assistance shall be provided local educational agencies by the State staff in these activities. Application data submitted by local agencies shall, as indicated in 3.2, provide assurance that such identification of vocational education needs are made and that programs are so directed to meet these needs. Special emphasis shall be given to the identification of disadvantaged and handicapped persons. Refer to 3.12 and 3.13. Special emphasis shall be placed on identification of programs for disadvantaged and handicapped which have additional financial burdens. Program evaluations by appropriate staff personnel and functions of the State Advisory Council in the area shall provide adequate data for identification of vocational education needs.

Information compiled on vocational education needs shall be the basis for relative priorities as pertains to part B program purposes. Such priorities shall be used in developing the long-range program plan for the State.

Periodic evaluations as described in 1.5 shall be used in assigning priorities for vocational education needs. These evaluations shall contain areas of recommended change, redirection, and upgrading of programs to insure that the needs of population groups shall be assessed and shall be served adequately through vocational education.

Local advisory committees as well as the State advisory council shall study the relationship between current and projected vocational education programs and how adequately the needs of population groups shall be met. Recommendations of these groups, as well as studies or findings of the program development unit, shall be used by the State board in program planning to meet the needs of different population groups in the State.

3.26–3 *Relative ability to provide resources:*

A. The State board will utilize the seven factors listed below in determining each district or institution's ability to pay.

1. School districts' assessed valuation per ADA as compared to the average assessed valuation per ADA statewide.

2. District revenue per ADA from local source as compared to average ADA statewide.

3. Assessed valuation of district compared to the maximum ratio allowed under State law.

4. Bonding capacity of the districts as compared to the maximum allowed under State law (when equipment and/or buildings are requested).

5. Return of the mill levy from the city, town, or village to the school.

6. Total revenue per ADA for operational purposes compared to statewide average.

7. The total local tax burden.

B. State-financed institutions, community colleges, junior colleges, technical vocational institutes and other area vocational schools will be considered to have the same relative ability to pay as the State average.

C. The date for the formula will be updated annually and will be taken from information supplied by the statistics division, State department of education and from statistics supplied by the chief of public school finance, Division of Finance and Administration, State of New Mexico.

D. When the State board determines that special conditions exist, it may reimburse at a rate commensurate with special conditions.

3.26–4 *Relative costs of programs, services, and activities:* The local educational agency will submit information annually showing any excess costs for construction, purchase of equipment and program operation if additional reimbursement is requested. This information will be compared to the average cost of construction, equipment costs, and operation costs statewide. Those districts with relative costs in excess of the statewide average may be reimbursed at a higher rate, depending upon the degree of the excess costs. Additional reimbursements will be determined for each claim requested.

3.26–5 *Other criteria of the State:* The State board shall use the criteria described in 3.26–1 through 3.26–4 and any other criteria needed to comply with State law in determining relative priority of local applications.

3.27 *Application of criteria in determining the relative priority of local applications.* The New Mexico State Board of Education will use a formula in allotting funds to local educational agencies. This formula shall include manpower needs, vocational needs, ability of the school district to pay and the excess cost.

The following is a description and example of the formula to be used by the State board in determining the percentage amount of the Federal share of vocational programs. In the event that the State board is unable to meet all bonafide requests for vocational programs due to lack of funds, the formula will also be used to determine the relative priority of local applications.

Factors will be selected ranging from one to eight with the State average basic factor being four. Local school factors will be expressed in terms of deviation from the State average. Weights assigned will be expressed in terms of the relative importance of each factor in the determination of amounts to be allotted local educational agencies.

Example of the State Average Weighted Formula

Selected factors—1 to 8.

State average basic factor—4.

Local educational agencies factors expressed in terms of deviation from the State average weights assigned are expressed in terms of relative importance of each factor in determination of relative piority of application to percentage of Federal funds.

	Weight of factor	Basic factor	Weighted factor
Vocational needs of students	5	4	20
Ability of district to pay	3	4	12
Excess cost of program	2	4	8
Manpower needs and job opportunities	1	4	4
Total			44

NOTE.—44 divided by 4=11.0 State average weighted factor. Average reimbursement to schools—50 percent. Thus, 50 percent—11.0 average weighted factor.

EXAMPLE OF A LOCAL EDUCATIONAL AGENCY FORMULA
School District X, N. Mex.

Vocational needs of students		5.8	
Ability of district to pay		4.2	
Excess cost of program		5.0	
Manpower needs and job opportunities		4.6	
Vocational needs of students	5	5.8	29.0
Ability of district to pay	3	4.2	12.6
Excess cost of program	2	5.0	10.0
Manpower needs and job opportunities	1	4.6	4.6
Total			56.2

Note.—56.2 divided by 4=14.05 average weighted factor of district X. State Average Weighted Factor—11.0.
Thus, the weighted factor of this school is 3.05 over the State average.
Thus: 11.0:50% : 14.05:X% X=63.7%.
63.7 multiplied by approximately ⅔=% amount of Federal funds allotted to this example application.
63.7 multipled by approximately ⅓=% amount of State appropriated funds allotted to this example application.
Approximately ⅔ of the reimbursable budget is Federal while ⅓ is State appropriated funds.

g. (ii) Albuquerque (1972)

		Percent
Total Federal dollars	$578,610	17.8
Total State/local	$1,633,408	23.5
Population percent (1970 census)		29.3
Economically depressed areas (in entire State except SMSA):		
Total Federal dollars	$1,103,635	33.9
Total State/local	$2,892,413	41.7

Note.—Population percentage not available.

h. Construction and Equipment

Not available.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

EXEMPLARY PROGRAMS

	1968	1972	1977
Albuquerque Career Education Taos Career Education	NA	14,485	NA

a. Residential Vocational Education

No new residential schools are needed at present. The existing three schools are sufficient for the present and immediate future.

b. Consumer and Homemaking

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	(1)	(1)	(1)	20,679	13,149	661	534	180	40
Adult	(1)	(1)	(1)	0	0	0	750	427	8
Total	6,400	7,300	0	20,679	13,149	661	1,284	607	48

[1] Not available.

c. Cooperative Vocational Education

Cooperative vocational education	
1968	NA
1972	904
1977	1,284

This is only part of the cooperative effort. Part B funds are also used.

d. Work Study Programs

Work study programs	
1968	0
1972	221
1977	520

e. Research and Training

Albuquerque Public Schools.—From part D—exemplary funds, the beginnings of career education were started in Albuquerque. A total of 38 minigrant programs were funded at a cost of $19,000. This project was not a complete K-6 program at one or more schools; instead, they were discrete programs coordinated on an area school basis. A descriptive report of all projects was submitted by APS, and it will be disseminated.

Taos Public Schools.—From part C and part D funds, a pilot K-12 career education project was kicked off in January 1972. This is one of the 70 career education projects financed across the country by U.S.O.E. RCU monitors and supervises the project, which will run through June 30, 1973. This project was funded for approximately $97,000 with an additional special grant of $10,000.

STATE ADVISORY COUNCIL

Summary Advisory Council "Recommendations"

Recommendations to the State Board

1. The State board should strengthen the total guidance and counseling system by entering into cooperative agreements with educational institutions involved with training counselors in order to provide course offering relevant to career orientation.

2. The State board should encourage the use of Federal funds earmarked for exemplary purposes for initiating additional experimental programs in career development.

3. The State board should cooperate with the State manpower planning council to develop a system of cross-utilizing manpower resources to enhance the occupational guidance system.

4. The State board should encourage the division of VTAE to undertake a cooperative effort with State agencies requiring similar occupational and manpower data to assist the employment security commission in developing the capabilities necessary to serve the information needs of these agencies.

5. The State board should explore the possibility of establishing cooperative arrangements with postsecondary area vocational schools to assist secondary school districts in the development of multi-level career development programs.

6. The State board should continue its efforts to expand the industrial development training activities within the division of VTAE, and should support legislative action necessary ito secure additional State funds to conduct such programs.

7. The State board and the State office of public school finance should mutually develop a method for disbursing all State and Federal funds for vocational education programs in elementary and secondary schools in New Mexico pursuant to the following guidelines:

A. Funds provided through this system should be a result of an annual comprehensive vocational education plan submitted by each district to the State board of education for approval on the basis of criteria cited in the State plan. Such a proposal should have the concurrence of the local advisory committee(s) for each area of training being requested.

B. The distribution system should recognize efforts of the school district to implement a total vocational education program, grades 1 through 12, by providing supplemental incentive grants to the district.

The said agencies should create and support legislation necessary to the implementation of this method.

8. The State board should recognize the need for a long term plan (postsecondary) to be developed in light of projected needs to secure and allocate State funds for constructing facilities at postsecondary area vocational schools.

Recommendations to division of vocational-technical and adult education

1. Career awareness group guidance programs should enroll a minimum of 8,500 students, and a means of support for these programs should be developed.

2. The person chosen for the position of State vocational guidance counselor should be able to take a leadership position in providing career orientation services for all public school counselors.

3. A teacher-training institution should be established for the area of vocational guidance and counseling.

4. The division of VTAE should make provisions in future program planning and budgeting to accommodate those local school districts that endeavor to adopt model programs to their respective curricula.

5. The research coordinating unit, in selecting new programs of this nature (exemplary), should give special consideration to the continued refinement of existing programs in order to develop more inclusive models, any of which could be incorporated into the curriculum of any school district.

6. The division of VTAE should continue to expand existing programs to meet both the actual and anticipated manpower needs in the health service occupations field.

7. Introductory and CORE programs which would acquaint students with this area (health) and which would prepare them for specific paramedical courses should be encouraged at both the elementary and secondary level. Priority for the establishment of these programs should be given to rural communities in the target areas.

8. The division of VTAE should establish training programs for one or more of the following occupations in an effort to meet the rapidly increasing demand for skilled personnel: Dental hygienists, physical therapists, medical lab technicians and librarians, radiologic technicians, orthopedic assistants, prosthetists, and health aides.

9. An extensive effort should be made to establish a teacher-training activity for all areas of health service occupations.

10. The long-range planning function should be formalized at the State level to assure a Statewide systematic approach to program planning. Provisions should be subsequently made to create regional vocational education supervisory positions for the purpose of providing assistance to the local school districts in the planning task, and to serve as a liaison to the division of VTAE.

11. The weighting scale for distributing Public Law 90-576 funds to area vocational schools should be refined to comply with a total Statewide program planning and budgeting effort.

Summary of Responses to Advisory Council Recommendations
Recommendations to State board.

1. State board action in revision of standards for vocational guidance certification will lead to implementation of this recommendation.

2. The State board through adoption of minimum standards (February 1972) has registered its support of a career development program.

3. The superintendent of public instruction, along with other agency heads, participates with the State manpower planning council on work to develop the cross-utilization of manpower resources.

4. Agreement to this recommendation is in the affirmative and work is being done in this regard.

5. The State board recently (February 1972) adopted minimum standards which will lead to implementation of this recommendation.

6. Senate Bill 87 Development Training Act as passed by the last legislature. This act gives the State board a major role in implementation of this recommendation.

7. The State board has taken action on reorganization of the department of education which will be implemented sometime in the coming fiscal year. This action will make positive contributions to increasing effectiveness in the present system of disbursing funds. Additionally, the State board recently adopted minimum standards that will aid in implementation of this recommendation.

8. The State board has recognized the need for a postsecondary plan. Additionally, the last legislature passed Senate Bill 43 Vocational Capital Improvements Act, which will assist the postsecondary area vocational schools with construction projects.

Recommendations to division of vocational-technical and adult education

1. At present, Federal funds from part D (exemplary) of the vocational act may be used for a limited time in developing career awareness programs. Additional funds, Federal, State, local, must be generated to implement minimum standards regarding career awareness programs adopted by the State board in February 1972.

2. The administration of the vocational division feels the supervisor of special needs, along with department counseling personnel, have the latitude to provide leadership for public school counselor in providing career orientation services.

3. Work is being done with personnel of higher education institutions to provide teacher-training in identified areas of need.

4. & 5. Action by the State board, as mentioned in item 7, previous responses, will aid in implementation of this recommendation.

6. As additional funding for vocational education is received, the division intends to expand programs in the health service areas where there is identifiable need.

7. & 8. The vocational division recently established a program approval committee to work with items as mentioned in recommendations 7 and 8.

9. Work is being done with personnel of high education institutions to provide teacher-training for identified areas of need.

10. Reorganization of the division of vocational-technical and adult education during the 1972–73 school year will result in positive action on a systematic approach to program-planning and budgeting.

11. The division is presently considering the Federal and State formulas with respect to making recommendations for establishment of a more compatible overall system that accounts for the unique cost of vocational instruction.

NEW YORK

State Director—Robert S. Seckendorf

INTRODUCTION

The program accomplishment in New York State since the enactment of the 1963 Vocational Education Act and the 1968 amendments has been continuous and significant. Briefly, the following are some of the accomplishments which are detailed later.

Enrollment in occupational education (including consumer and homemaking) at all levels has increased from 521,603 in 1963 to 677,585 in 1968, and to 754,489 by 1972. Total enrollment is expected to reach almost 940,000 by 1977. In fiscal year 1963, 320,914 secondary students, 178,635 adults, and 22,054 postsecondary students were enrolled in occupational education programs. By fiscal year 1968, occupational education enrollment consisted of 447,087 secondary students, 163,519 adults, 37,863 postsecondary students, and 29,116 special needs students. Of the total enrollments in 1972, 483,285 were secondary students, 295,500 adults, and 81.175 postsecondary students.

The enrollment of disadvantaged and handicapped students in occupational education programs was not reported in fiscal year 1963. Between 1968 and 1972 combined disadvantaged and handicapped enrollments at all levels increased by almost 700 percent from 29,116 to 194,778. By 1977 this enrollment should be approximately 264,000.

During the period from fiscal year 1963 to fiscal 1972 significant changes have occurred in occupational education priorities and consequently in program directions. Prior to the Vocational Education Amendments of 1968, Federal, State, and local funds were primarily used to increase the availability of a diversified occupational education program for all segments of the population. Emphasis was placed on developing a network of board of cooperative educational service area centers which would provide persons in all areas of the State access to a variety of occupational training programs. Within program areas special consideration was given to expanding the number and breadth of occupational courses based on existing and anticipated manpower opportunities.

While expanding the number of occupational facilities and program offerings continued to be a priority after the enactment of the amendments of 1968, increased emphasis was placed on meeting the needs of specific groups of people. Special efforts were made to design and implement programs and services responsive to the needs of the disadvantaged, handicapped, and adults and out-of-school youth. Development of cooperative work experience programs and expansion of consumer and homemaking education offerings in economically depressed areas were other funding priorities during this period.

Currently emphasis has been placed on implementing the goals of the regents position paper particularly those aspects dealing with elementary and early secondary students need for career education, continuing to increase the availability of adult occupational offerings, furthering the growth of programs and services in urban areas, and improving the quality of occupational education programs.

During the past 10 years, the growth and development of course offerings within the 7 occupational program areas has provided students with additional opportunities in emerging employment fields.

In 1963, of the 420,950 students enrolled in occupational education programs exclusive of consumer and homemaking education, almost 70 percent were in office education. Trade and industrial education accounted for 22 percent of the enrollments and the remaining 8 percent were enrolled in the occupational program areas of agriculture, distributive, health occupations, home economics, and technical education. By 1968, the office education enrollment increased numerically to 273,849, however, it was decreasing as a percentage of the total. Other program areas began to show significant growth. In health occupations education, for example, enrollments increased from 2,047 to 14,379. Enrollments nearly tripled in technical education, and trade and industrial education increased by 43 percent.

Enrollments continued to grow through 1972, particularly in those occupational fields with critical manpower needs. Health occupations education enrollments again experienced considerable growth, increasing by more than 100 percent. Program areas exclusive of office education comprised a greater portion of total enrollment demonstrating constant efforts to diversity training opportunities. It is anticipated that through 1977 similar trends will continue as course offerings within each of the program areas are developed and expanded.

Courses providing preparation in newer job fields have been added in each of the program areas during the past few years. In the area of agriculture education, courses in horse husbandry or care and training of standardbred horses are now offered in four areas of the State where racing is a significant industry. Three courses in small animal science, which prepare students for work in laboratories, pet care facilities, and as veterinary assistants have been implemented. Both of these types of courses have been initiated within the last 3 years, but virtually all agricultural programs, other than agricultural production have been developed since 1963. Environmental courses in water sampling, water testing, -and air pollution are planned for implementation in the near future.

Many new courses in the health occupations fields have been added during the past few years. A secondary level dental laboratory technician aide course that is articulated with a 2-year college program was initiated in 1972. Two BOCES now provide an adult emergency medical technician course which leads to State certification. Secondary and adult level courses in environment health assisting and school health assisting also began operations last fall. A new adult course in geriatric assisting combines instruction in health care with instruction in personal services. Curriculum for a component of a secondary trade and industrial course in electronics, biomedical equipment assisting, was developed and recently implemented.

In the business and office field, courses in automatic data processing have been implemented in about 100 locations around the State since 1968. During the last school year 10 word processing specialist courses began operations. Students in these courses work with specialized typewriter keyboards. Courses in machine transcription have been in existence for some time, but recent efforts have expanded the number of locations in which it is offered to about 50. Several new kinds of courses in distributive education have been initiated, since 1971. Recent additions include courses in travel and tourism, advertising, warehousing, and in international trade. New adult courses in hotel management began operations last fall.

Most courses in occupational home economics have started since 1965. Offerings now include child care services, food services, home furnishing services, clothing services, and housekeeping services. The greatest increase during recent years has been in the first two of these.

In the trade and technical area, a new course in oceanography was initiated last September in New York City. Utilizing a surplus ship, the curriculum includes a study in ecology and navigation as well as oceanography. A new course is planned for the fall of 1973 in television broadcasting at a BOCES area center, which will provide on-the-job experiences in the technical aspects of the field.

ENROLLMENT IN OCCUPATIONAL EDUCATION AND CONSUMER AND HOMEMAKING PROGRAMS FOR FISCAL YEARS 1963, 1968, 1972, 1977

		Secondary	Adult	Post secondary[1]	Total
			1963		
Agriculture		9,500	2,000		11,500
Distributive		10,223	2,482		12,705
Health		1,600	447		2,047
Home Economics					
Office		217,491	76,174		293,665
Technical		6,500	3,557		10,057
Trade and Industrial		49,600	41,376		90,976
Consumer and homemaking		26,000	34,599		60,599
Total		320,914	[2] 178,635	22,054	481,549
			1968		
Agriculture	9,261	1,610	2,038	764	13,673
Distributive	36,098	4,834	5,214	894	47,040
Health	5,305	1,694	6,688	692	14,379
Home Economics	1,680	1,560	1,050	1,058	5,348
Office	185,521	67,932	13,586	1,978	269,017
Technical	15,778	3,960	9,287	873	29,898
Trade and Industrial	81,954	42,072		5,878	129,904
Consumer and homemaking	111,490	39,857		16,979	168,326
Total	447,087	163,519	37,863	29,116	677,585
			1972		
Agriculture		9,185	3,034	2,674	14,893
Distributive		17,800	4,825	5,902	28,527
Health		11,798	8,403	12,650	32,851
Hone Economics		3,747	1,030	1,882	6,659
Office		209,087	44,315	20,447	273,849
Technical		14,468	7,431	9,627	31,526
Trade and Industrial		83,897	61,232	9,701	154,830
Consumer and homemaking		133,303	78,051		211,354
Total		483,285	208,321	62,883	754,489
			1977 (projected)		
Agriculture		10,400	5,300	3,600	19,300
Distributive		21,600	7,500	6,900	35,900
Health		14,800	16,500	18,500	49,800
Home Economics		8,600	5,300	3,300	17,100
Office		222,800	62,000	23,600	308,400
Technical		14,000	10,200	12,500	36,700
Trade and Industrial		114,900	104,900	12,900	232,700
Consumer and homemaker		153,800	83,800		237,500
Total		560,900	295,500	81,300	937,400

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[1] Enrollment by program area is not available since postsecondary occupational education data was not collected by the Office of Occupational Education in fiscal year 1963.

[2] Includes 18,000 adults enrolled in part-time postsecondary programs.

POSTSECONDARY ACCOMPLISHMENTS

Occupational education programs offered in the State's public 2-year community colleges and technical institutes provided training opportunities to almost 100,000 students in degree and shorter-term certificate programs in fiscal year 1972. By 1977, this enrollment is expected to exceed 140,000. Between 1963 and 1972, enrollments increased by almost 150 percent from 40,054 to 97,988. During this same period the number of public 2-year colleges offering programs leading to immediate employment increased from 21 to 44. The wide geographic distribution of the public 2-year colleges provided access to approximately 90 percent of the State's college age population most of whom commuted to these local institutions.

Full-time degree credit enrollment has increased from 22,054 in 1963 to 60,506 in 1972, and by 1977 is expected to be 76,300. Part-time or adult enrollment in degree credit programs has risen from 18,000 in 1963 to 25,733 in 1972, an increase of 43 percent. By 1977 this enrollment should be 43,000.

Short-term or certificate programs were not offered at public 2-year colleges in 1963. By 1972 full-time certificate program enrollments totaled 2,377 and part-time nondegree or adult enrollment totaled 7,458. In 1977 nondegree full-time enrollments are projected as 5,000 and nondegree part-time enrollments as 12,000.

Occupational curriculums, or courses of study, numbered approximately 270 in 1963. By 1971, nearly 940 occupational curriculums leading to the associate degree were being offered, and 394 leading to a certificate.

In the fall of 1966, with the establishment of five urban centers, affiliated with local community colleges, new opportunities opened up for urban youth and adults seeking occupational training. Today, with 8 urban centers in operation, 4,684 day and evening students are enrolled in 87 courses of study in the fields of office, trade and industry, health, human services, and distribution. These courses are supplemented by services which strengthen basic skills in reading, computation, and study habits, while providing intensive counseling and guidance.

A large majority of new occupational programs, both degree and certificate, which have been developed since 1963 owe their initial establishment to the funding support provided under the Vocational Education Act of 1963 and Amendments of 1968. Most were incorporated into the regular programs of the 2-year colleges which receive support from State and local sources. Most students enrolled in occupational education at these public institutions have benefited in some way from the support provided under VEA. During the last fiscal year, for example, 26 new curriculums were started, and another 68 expanded or improved, as a result of program support provided through VEA. In addition, the educational needs of over 9,200 students in degree and certificate occupational programs were provided for through remediation programs; new and expanded occupational guidance and counseling; and introduction of improved instructional technology. Preliminary estimates indicate a comparable number of new programs will begin operation in the current year with full or partial support provided under VEA. Funding support, if sustained, should enable public 2-year colleges to increase the number of courses by over 20 percent by the year 1977.

Besides the addition and expansion of programs, VEA funds have been utilized to improve the quality of occupational education opportunities at the 2-year public colleges, and to focus programs and services more directly on the individual and special needs of an increasingly diversified student population. Among the activities which have contributed to these trends are: Development of cooperative work experience programs; articulation with secondary level programs; and development of programs and services for the disadvantaged and handicapped.

Cooperative education programs at the postsecondary level experienced increases in enrollments for each of the years 1963 through 1973. There were slightly more than 200 students enrolled in cooperative work experiences which were coordinated with educational programs during the 1963 school year. In the current year—fiscal year 1973—over 2,500 students are enrolled in cooperative education programs encompassing a wide range of occupational fields such as business, hotel technology, human services, health, management, and engineering technologies. Within the past 3 years, two community colleges have embarked on total school programing for cooperative education, which requires students enrolled in each of the curriculums to engage in work assignments for which they receive academic credit toward their degrees.

Closer articulation and cooperation between secondary schools and community colleges have resulted in joint use of facilities and resources, and the development of new curriculums designed to increase access to post-secondary occupational programs. Most efforts at articulation of occupational programs have occurred during the past 5 years, with impetus provided mainly through the medium of regional planning and supplementary funding support available under VEA to provide for equipment and staffing needs. Programs which are now articulated between some local secondary and postsecondary agencies include nursing, data processing, retailing, legal and medical secretarial, drafting, automotive, building construction, electrical technology, and mechanical technology. Efforts are currently underway to provide additional opportunities for secondary students to systematically transfer to postsecondary institutions in fields related to their secondary occupational studies.

Disadvantaged and handicapped students are being provided with many new training opportunities as well as with supportive and supplementary services to aid them in completing their instructional programs. Short term programs in fields such as automotive, printing, electrical, office machine repair, welding, drafting, licensed practical nurse, child care, office skills, and others were specially developed to assist disadvantaged in meeting job requirements for which employment opportunities exist. Since most economically disadvantaged students enrolled in these programs were also educationally disadvantaged, it was evident that supplementary services in the form of guidance and counseling and developmental skills centers to strengthen reading, computational, and study skills were also prerequisite to effective training for these students. Most 2-year colleges are now actively engaged in providing these services for disadvantaged students enrolled in occupational programs and are continually assessing and strengthening these supplementary elements in their educational offerings.

Handicapped students are also provided new services which include special counseling, summer orientation programs to aid in developing greater self-sufficiency and increased mobility on campus, the modification of facilities to provide easier access to classrooms, and specialized equipment to assist the handicapped to function effectively in reading and note taking.

PROGRAMS FOR THE DISADVANTAGED

In New York State, programs for disadvantaged and handicapped students, designated as "special needs programs" were established under the Vocational Education Act of 1963. These programs were designed to assist students who had physical, academic, socioeconomic, or other handicaps which prevented them from succeeding in regular occupational education programs. Unique occupational programs were created which provided a suitable learning environment for persons who had special learning difficulties.

Enrollments are not available for fiscal year 1963, since funds were not yet designated for establishing special needs programs and reporting forms did not indicate the number of disadvantaged and handicapped students who were enrolled in regular occupational programs. In subsequent years however, several thousand individuals classified as persons with special needs were served in the programs made possible by the Act of 1963. In 1968, for example, 29,116 special needs students were served in occupational programs. At that time emphasis was placed on early identification of students with special problems and development of an integrated program encompassing general education, occupational orientation, skill training, and supportive guidance and counseling service.

Following the 1968 Amendments to the Vocational Education Act provisions were made for separate categorical set-asides for the disadvantaged and handicapped. In fiscal year 1972 a total of 186,893 disadvantaged persons were served in occupational education programs, including consumer and homemaking education. This number included 88,756 secondary students, 3,966 postsecondary students, 10,981 adults, and 83,190 disadvantaged students enrolled in consumer and homemaking education programs. Whenever possible, the disadvantaged students were served in occupational courses in which the regular instruction was accompanied by any special assistance or services required by the students. All of the special efforts to serve the disadvantaged were aimed at discovering and stimulating student interest and providing the additional instructional or supportive services required for the students to succeed once they had found their areas of interest.

Many special programs were also established for those students who could not succeed in regular programs even with extra services. These programs were in many cases directed toward providing short term, entry-level job skills or at upgrading existing skills for the purpose of providing increased employability potential. Another type of program frequently used consisted of a series of multioccupational courses which permitted students to sample several areas of study prior to enrolling in one specific occupational area. In 1972, 53 programs were initiated for the disadvantaged. Within these programs, efforts were made to: Provide flexibility in scheduling, conduct classes outside of regular school hours and during the summer; and permit students to leave and reenter training based on their interest and readiness. To assure that occupational training offered to disadvantaged persons would be in accord with the manpower needs of the labor market, close cooperation was established between the schools, industry, and public employment service agencies.

By fiscal year 1977, a 25-percent increase in disadvantaged student enrollment is expected. Of the almost 250,000 students to be enrolled, it is anticipated that 99,600 will be secondary students, 12,300 postsecondary students, 46,200 adults, and 91,000 disadvantaged secondary and adult consumer and homemaking education students.

PROGRAMS FOR THE HANDICAPPED

In fiscal year 1963, the number of handicapped persons enrolled in occupational programs was not reported. Although programs had not been established for disadvantaged or handicapped persons, it is estimated that approximately 1,000 handicapped persons were enrolled in occupational' programs. Following the Vocational Education Act of 1963, provisions were made to serve handicapped students, together with disadvantaged students, in "special-needs" programs. As indicated in the section on the disadvantaged, by fiscal year 1968 a total of 29,116 students were enrolled in these programs. Approximately 1,300 of these students are estimated to have been handicapped.

After the 1968 amendments were enacted, separate programs for the handicapped developed rapidly in areas that had large concentrations of population. The availability of Federal funds under the categorical grants provided for such activities as: Planning and development, expansion of guidance services, inservice teacher education, expansion of cooperative work experience for handicapped students, and development and expansion of specialized skill training prgrams such as landscaping horticulture, clothing services, auto mechanics, clerical services, and electrical helper.

By fiscal year 1972, a total of 7,822 handicapped persons were enrolled in occupational education programs. This enrollment included 7,012 secondary students, 569 postsecondary students, and 241 adults. During that year, Federal funds were used to develop 32 new programs, serving 4,200 handicapped persons. Programs initiated in previous years were continued, with many extended to provide training and/or services in newly identified areas. Programs were expanded by the addition of courses of study such as welding, aviation, printing, security services, dental laboratory assistance, clock and watch repair, animal care, sewing machine operation, and truckdriving. New services included addition of psychological and testing services, work-placement coordination, on-the-job supervision, and specialized guidance assistance.

Job adjustment training sessions were frequently incorporated into the occupational curriculum for handicapped students preparing either to enter a cooperative phase of a program or to directly enter the labor market on a full-time scale.

The projected enrollment of handicapped persons in occupational education programs for fiscal year 1977 is 13,900. Of this total it is anticipated that 10,400 will be enrolled at the secondary level, 900 at the postsecondary level, and 2,600 at the adult level.

PROGRAMS FOR ADULTS

Occupational education programs for adults served 178,635 persons in fiscal year 1963. This number included 126,036 preparatory and supplementary program students, 34,599 adults enrolled in consumer and homemaking education, and 18,000 adults enrolled in 2-year college programs on a parttime basis. In fiscal year 1968, a total of 163,519 adults were in occupational education, including consumer and homemaking education. This number included 16,690 persons in adult preparatory programs and 146,829 persons enrolled in adult supplementary programs. Of the total 29,678 students were enrolled in 2-year colleges or urban centers. The adult enrollment for 1968 appears to be lower than for previous fiscal years, since that year special needs students, including adults, were counted separately. The reporting forms, however, do not indicate the number of adult special needs students.

In fiscal 1972, the total adult enrollment was 208,321. This total included 21,078 preparatory students and 187,243 supplementary program students. Of the total adult enrollment, 35,105 were enrolled in 2-year college and urban center programs.

By 1977 adult enrollment is expected to be 295,500, with 34,300 students in preparatory programs and 261,200 in supplementary programs. The projection for the community college and urban center component of the adult enrollment is 62,600.

The numbers of adults enrolled in federally supported Manpower Development and Training skill center programs in 1963 and 1968 were 4,488 and 1,537, respectively. In fiscal year 1972, 6,280 adults were enrolled in MDTA skill center programs and 1,890 in occupational preparation work incentive programs. The combined enrollment in MDTA and WIN skill training programs is expected to be approximately 13,400 by fiscal year 1977.

In recent years, considerable emphasis has been placed at the State level on working towards the implementation of the board of regents goal of developing a comprehensive and coordinated manpower system which meets the occupational needs of adult and out-of-school youth. Recognizing that no single type of agency has the capacity to meet all of the needs of adults for manpower services, certain activities have been undertaken in occupational education to determine the needs of adults and to coordinate the required services. Specific methods which have been used include: Assisting a selected number of BOCES and large cities to develop an organizational structure for a comprehensive adult program; utilizing existing resources and facilities more extensively; developing regional participatory planning; and improving and expanding articulation at the local level between BOCES, 2-year colleges, and other agencies serving adults.

Special emphasis has also been placed on increasing the availability of public occupational education overall by developing, expanding, and improving programs and on identifying and meeting the special needs of disadvantaged and handicapped persons.

FINANCING

Since the enactment of the Vocational Education Act of 1963, New York State has not used Federal vocational money to reimburse local agencies for expenditures nor are funds used to contribute to the cost of maintaining existing programs. Funds are allocated based on priorities and objectives in the annual and long-range program plan. These funds are paid to local agencies without a requirement for local matching or for generating any of the initial cost of developing new or expanded programs. The funds are allotted on a 100-percent basis, based on the budget submitted by the local agency.

Close to $300 million are spent in New York State for all occupational education, of which less than 10 percent is Federal. This expenditure represents $11 of State and local money for every Federal dollar received in New York State for occupational education.

Funds allotted to the State under part B of the act are distributed to local educational agencies on a competitive grant basis with particular consideration given to: proposals which are best designed to fulfill current and projected manpower needs; proposals which meet occupational needs of the State's various population groups; the relative ability of the agencies to provide resources; and the relative costs of programs, services, and activities.

A local agency's relative ability to provide resources needed for occupational education is determined in the same manner as the relative ability of local educational agencies to support its total educational program. This is based on a State ratio which takes into consideration wealth per pupil in a school district.

In determining the relative costs of programs, services, and activities, consideration is given to: differences in the costs to local agencies of materials and services which are due to variations in price and wage levels or other economic conditions existing in the areas; and differences in the amount of excess costs resulting from the necessity of supplying additional special services other than those essential to meet the special occupational education needs of certain population groups, such as disadvantaged and handicapped persons. The excess costs are determined on the basis of a comparison of the proposed programs, services, and activities identified by a local educational agency with the prevailing average statewide costs for such programs, services, and activities.

POPULATION AND THE PERCENTAGE OF TOTAL STATE POPULATION IN URBAN AREAS OVER 250,000 AND 2 RURAL POVERTY AREAS; FEDERAL FUNDS FOR THESE SAME AREAS, AND THE PERCENTAGE THEIR FEDERAL ALLOTMENT IS OF TOTAL FEDERAL FUNDS; AND TOTAL STATE AND LOCAL FUNDS

	1963			1968				1972			
	Population	Percent of total State	VEA funds[1]	Population	Percent of total State	VEA Funds	Percent of Federal funds	Population	Percent of total State	VEA funds	Percent of Federal funds
New York City	7,786,000	45		7,892,000	44	$1,770,874	10	7,899,000	43	$9,180,000	30
Buffalo City	511,000	3		475,000	3	782,057	4.6	450,000	2.4	2,397,813	7.7
Rochester City	310,000	2		300,000	2	494,307	2.8	292,000	1.5	1,658,289	5.5
Allegany County	44,442	.2		46,152	.2	5,463	.03	46,764	.2	181,544	.53
Clinton County	72,785	.4		72,892	.4	20,725	.11	72,976	.4	84,961	.25
Total State population	17,120,000			17,903,000				18,482,000			
Total Federal funds						17,635,062				30,506,246	
Total State and local funds						169,861,731				294,837,106	

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[1] Dollar amounts for fiscal year 1963 not listed since funds from VEA were not available until the following fiscal year.

CONSTRUCTION

In fiscal year 1963 all area occupational facilities in the State were rented, since no State law allowing boards of cooperative educational services to borrow money to construct facilities had been enacted. The BOCES were only able to offer occupational programs by contracting with component schools for use of their facilities or by utilizing other improvised space. Due to the lack of adequate facilities, only five BOCES offered occupational courses in five program areas.

During fiscal year 1966, funds from Vocational Education Act of 1963 were used to begin the first construction phase of three area occupational facilities. These funds were used in connection with local, State, and Appalachian Regional Commission moneys. This construction was possible since three component city boards of education entered into agreements with BOCES to erect buildings for their shared services.

Six construction projects received VEA funds in fiscal year 1967. As in the previous year, local city boards of education and boards of education of individual school districts which were members of BOCES acted as sponsoring agencies for erecting buildings to be used for shared services.

In 1968, the passage of the amendment to the Board of Cooperative Educational Services law, authorizing BOCES to undertake the acquisition or construction of real property, produced a rapid succession of construction proposals. Allocations were made for the construction of 12 area occupational facilities following passage of local referendums.

VEA Federal funds were allocated to 23 construction projects from fiscal year 1969 through 1971—17 in 1969, 2 in 1970, and 4 in 1971. During this period funds were also used for the purchase of equipment for newly constructed facilities.

In fiscal year 1972, funds were allocated for the construction of facilities at 2 BOCES centers and at 2 community colleges, for supplemental expenditures for 39 previously approved construction projects, and for the acquisition of existing facilities at 2 locations.

Because of the efforts in recent years to construct facilities, the number of centers remaining in rented space by 1977 will be greatly reduced. However, the expansion of occupational education program offerings and the increased numbers of students who are selecting these programs is creating pressure on current occupational education facilities. The use of moneys for construction will therefore be reviewed in the future in relation to the needs to expand existing facilities, update instructional equipment, and add new facilities at the centers. Additionally, a study has been planned which will determine what effect Federal support for construction has on the overall cost of construction projects. Due to this anticipated review of priorities for construction, a long-range goal for the use of VEA moneys toward support of construction projects has not been projected.

The following table lists investments for construction and equipment from Federal, State, and local sources for fiscal years 1963 through 1968, 1969 through 1972, and 1973 through 1977.

EXPENDITURES FOR CONSTRUCTION IN NEW YORK STATE FROM STATE, FEDERAL, AND LOCAL SOURCES

	Fiscal years		
	1963-68	1969-72	1973-77 (projected)
Federal	9,216,621	15,634,697	2,500,000
State	11,738,836	65,083,506	70,000,000
Local	7,961,382		
Total	28,916,839	80,718,203	72,500,000

EXEMPLARY PROGRAMS AND PROJECTS

Federal funds became available for exemplary programs following passage of the Vocational Education Amendments of 1968. Consequently, plans were made in fiscal year 1969 to award grants to educational agencies for the purpose of developing and organizing exemplary programs. The following year, planning grants for development of exemplary programs were provided to New York City, Syracuse, and Nassau County BOCES.

The purpose of the exemplary program developed in New York City was to demonstrate that the comprehensive high school plan can lead to major improvement of urban secondary education. The project was designed to serve as a model of a city high school in which the track and multiple diploma system is replaced by a commitment to provide maximum education for each student. This exemplary project focused on occupational education as a central function of the comprehensive school and as the area perhaps most open to imaginative redesign.

The exemplary program in Syracuse was designed to plan for the modification of a school system of a medium sized city through the introduction of occupational orientation in the elementary schools. The objective of the program was to demonstrate that occupational information and skill attainment are inseparable components of education.

An exemplary program for disadvantaged secondary students was planned by Nassau County BOCES. The purpose of this program was to provide a program of orientation and retail work experience for students who had just completed the 11th year in their local high school. The summer session of the program was planned to operate part of the day in class sessions at the local community college and the remainder of the day in various retail establishments. The school year aspect of the program, at the area center, was intended to provide specific skill training, related instruction, and cooperative work experience.

During fiscal year 1971, a planning grant was awarded to an educational agency for the purpose of developing and organizing exemplary programs designed to integrate general and occupational education for job success and to promote work experience as a statewide program. This project was conducted as a combined planning and implemention grant for an experimental electronics program, and was designed to allow students to enter into individualized instruction without prior testing.

Support was also given to the operational phases of the Nassau County BOCES, and New York City exemplary programs which had been provided planning grants during fiscal year 1970.

Two planning grants were awarded in fiscal year 1972 to educational agencies for the purpose of developing and organizing exemplary programs designed to promote cooperation between public education, manpower agencies, business and industry, and labor.

A White Plains public school was awarded a grant to develop a career orientation program for underachieving eighth, ninth, and 10th grade students. The objective of the program was to provide students with career oriented experiences which would assist them in making realistic decisions in their high school and post-high school educational planning. In the initial year of operation, students were exposed to broad samplings of career opportunities in four occupational clusters. the program utilized multiple instructional techniques designed to enable a student to progress at his own rate. Students spent a half day in related academic components and the other half in career oriented experiences relating to automotive, clerical, electrical, and food and health services occupations.

The Mineola public schools were awarded a grant for an exemplary career education project encompassing grades K–12. The first year was devoted to planning and designing curriculum and to inservice education of staff members. Five stages of career development, based on student maturation, were identified. Learning objectives were related to these development stages. School personnel and community representatives were involved in dveloping the concepts and process utilized in developing and implementing instructional modules, which were incorporated into the existing school program.

Continuing support was provided for the operational phases of exemplary programs initiated in previous fiscal years. The New York City project continued to utilize classes in electronics, health careers, business careers, and occupational orientation as vehicles for learning basic educational concepts in English, mathematics, and science, preparing students for job placement and/or further education at the post-secondary level.

In the continuing exemplary project between the Nassau BOCES and Nassau Community College, 20 students who had successfully completed the secondary level of the retail management program were engaged in an advanced 6-week summer program followed by enrollment in degree programs at the college. The college developed instructional and counseling activities to meet the individual needs of these students.

Fiscal year 1972 exemplary program funds were also used in the following year for planning grants developed by State University of New York at Albany and Nassau County BOCES. The purpose of the project at the State university is to eventually incorporate career education into the ongoing content and processes of New York State's elementary schools. Plans for the project include: creating a demonstration school, training over 400 elementary school teachers to implement career education objectives in their classrooms, and preparing curriculum materials for distribution.

Nassau County BOCES received support for the planning of two exemplary projects. One project is designed to develop a comprehensive approach to individualized instruction in occupational education and the other to develop and implement a countywide career education model, grades K–12.

The number of students served as a result of exemplary programs was approximately 2,530 in fiscal year 1972. By 1973, it is estimated that 5,000 persons will be served.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS

The development and expansion of home economics education programs has increased opportunities for both secondary youth and adults to obtain salable skills for employment as well as to improve their knowledge and skills as consumers, homemakers, and family managers.

In 1963, combined home economics gainful and consumer and homemaking education enrollments totaled 60,599. By 1972, consumer and homemaking enrollments alone were 211,354, and home economics gainful were 4,777. It is anticipated that by 1977, consumer and homemaking enrollments will reach 237,500 with an additional 13,872 students enrolled in gainful employment programs.

Following the implementation of the Vocational Education Act of 1963, home economics education was redefined to include preparation for employment. In fall of 1964 a syllabus for a comprehensive program of home economics education, which later introduced the revised home economics curriculum into all secondary schools, was completed. The new program included courses for students of all ability levels and backgrounds. Subject matter included: food and nutrition, child development, family and community health, textiles and clothing, family economics and housing, and equipment and furnishings. Consumer education and interpersonal relationships were interwoven throughout each of these courses.

With the Vocational Education Amendments of 1968, homemaking education was expanded to specifically emphasize consumer education and the development of special programs in economically depressed areas to improve the quality of home environment and family life. The major portion of part F moneys have been used since to initiate new programs for socially and economically disadvantaged adults which will provide them with the skills essential in their roles as consumers and homemakers or the dual role of homemaker and wage earner.

Programs for disadvantaged adults operate on both a full-time comprehensive and a short-term basis. Comprehensive programs are located in centers open daily and evenings throughout the year where services are available on a walk-in basis. Initially, 10 comprehensive programs operated in major urban areas and currently 24 full-time programs are housed in 43 separate facilities. The centers are located in storefronts, housing projects, community centers, and mobile vans for the convenience of the target population. In rural areas, a mobile van moves from one sparsely settled community to another.

Short-term programs for adults were established in 1970 in both urban and rural areas of the State, and currently 16 programs are in operation. Classes are conducted most frequently in nonschool settings and are scheduled in blocks of time such as daily for several weeks, weekly, or monthly. Independent but sequential sessions rather than full-time programs are offered. The locations, contents, and techniques used are similar to those of comprehensive programs. Frequently child care and transportation services are provided to program participants.

Four elementary schools are currently exploring the use of innovative techniques in consumer-homemaking education. Three secondary level programs are focusing on the effectiveness of individualized study, alternative facilities, and on contributions teacher aides can make to increase consumer knowledge and skills of the disadvantaged student.

Ancillary services in support of the instructional efforts include teacher education, staff development, and program evaluation. Preservice experiences with inner city schools and community agencies helped student teachers better relate to the disadvantaged student. Inservice opportunities were related to appropriate content and effective approaches to teaching consumer-homemaking skills.

Professionals and paraprofessionals staffing the adult comprehensive programs were involved in staff development activities which assisted them in working in their unique situations. An evaluation project to determine the effectiveness of selected adult comprehensive programs and to provide guidelines for continued evaluation of programs was also completed.

The following table summarizes enrollments in consumer and homemaking education and occupational home economics for fiscal years 1963, 1968, and 1972.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS

	1962-3 (fiscal year 1963)	1967-8 (fiscal year 1968)		1971-73 (fiscal year 1972)					
				Consumer homemaking			Occupational home economics		
	Vocational Home Economics	Home Economics useful	Home Economics gainful	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	26,000	111,490	1,680	133,303	40,253	....	3,747	705	404
Adult	34,599	39,857	1,560	78,051	43,000	....	1,030	129	6
Total	60,599	151,347	3,240	211,354	83,253	....	4,777	834	410

Cooperative Occupational Education

Cooperative occupational education programs were conducted in New York State in the areas of office, distributive, and industrial education prior to support from Federal funding. The Vocational Education Act of 1963 and the subsequent amendments provided incentive and opportunity for expanding these offerings and for developing programs in the areas of agriculture, health occupations, and occupational home economics education.

In fiscal year 1963, a total of 10,223 persons were served through cooperative education. In 1968 the number of students in cooperative programs was 37,221. However, enrollment figures which have been available since the development of the occupational education data subsystem in fall 1970 indicate that the figures for 1968 are significantly duplicated. In fiscal year 1972, enrollment in cooperative programs was 18,520. This total included 16,718 secondary students and 1,802 postsecondary students. That year cooperative programs were conducted in 13 BOCES area centers and in each of the six major cities. The estimated enrollment for fiscal year 1977 is 30,750.

From 1963 to 1972 the numbers of cooperative programs and cooperative enrollments were increased through the employment of work experience coordinators, the development and expansion of local programs the addition of work stations, and the expansion of summer programs.

In addition to increases in programs and enrollments, several new and modified methods of serving students in cooperative programs have been initiated as a result of Federal funding. Traditionally, each cooperative program was designed to serve a single program area providing enrollment was adequate to warrant a program area specialist. In recent years however, in the large cities, programs have been initiated which employ job developers, central office interviewers, and placement specialists serving students in several occupational areas. Another from of diversified cooperative education program which has been developed involves the placement of students from two or more program areas under the supervision of a single coordinator. This type of program has been most beneficial when used as the final phase of a student's occupational education.

Programs have been developed which offer cooperative training in those program areas which have low student enrollments and offer minimal opportunities for employment in the economic region. In these programs specifically trained coordinators prepare a class of students interested in a variety of occupation courses for placement in cooperative work experience by using programmed individual learning materials. This special preparation is accompanied by general related instruction and employment counseling.

A particular emphasis in cooperative programs in recent years has been to serve increased numbers of disadvantaged students. In 1972, for example, 4,745 economically and educationally disadvantaged students received cooperative work experience. Many of these students have been served in special cooperative programs which seek to increase the likeliness of student success through particularly interesting and motivating work experience supplemented by special instruction.

Cooperative occupational pretraining and job placement, previously used only in sheltered workshops, have also been developed for physically and emotionally handicapped students. In these programs the coordinators activities and orientation of students' coworkers are important factors in successful placement and adjustment of the handicapped students.

Reports from BOCES area centers, the six major cities, and community colleges alike, indicate that cooperative programs have a positive effect on students in addition to providing realistic exposure to working conditions. Participation in the programs often results in less student absenteeism, lower dropout rates, increased interest in occupational and home school subjects, and full-time employment of students by cooperating firms and agencies.

WORK STUDY PROGRAMS

Work study funds became available as a result of the Vocational Education Act of 1963. The purpose of the program was to provide part-time employment to students who needed the earnings to begin, continue, or return to an occupational program on a full-time basis. Enrollment figures are not available for fiscal years 1963 or 1964 since Federal funds did not become available until the following year. In 1965 a total of 5,220 students participated in the program. By 1967 the enrollment had increased to 6,789.

Part II of the Vocational Education Amendments contained provisions for continued support of work study programs. The amount of Federal funds available after 1968, however, was less than the level of support provided in previous years. In 1968 the $820,0000 provided to New York State were used to develop work study programs in the six major cities. Approximately 2,400 disadvantaged students were served at that time. In fiscal year 1972 work study programs served 2,268 disadvantaged students. By 1977, if sufficient funds are available for this purpose, it is estimated that 40,000 students will be served.

In addition to enabling disadvantaged youth to continue their occupatiomal training, work study programs have provided them with an opportunity to acquire some form of practical on-the-job work experience. As a result of the actual on-the-job experience, students' work habits and attitudes essential for success in the world of work have generally improved. Participants also often profited from the suggestions of experienced coworkers regarding the application of school learning to practical job situations. And finally, success on the job usually served as a stimulus for greater interest in the instructional program.

Whenever possible, students were placed in jobs which best suited their training, skills, and personal interests. The types of jobs varied greatly, covering all of the major program areas. In 1972, for example, the kinds of employment which were available to students included drafting, machine operation, health occupations assisting, office and clerical practice, food service, laboratory assisting, building maintenance, automobile servicing, and landscaping and gardening. While most of the employment was in public agencies, community organizations, and hospitals, some jobs were school-related, involving assistance of school staff or improvement of school property.

RESEARCH AND TRAINING

Part C funds in New York State have been and are used for developmental, pilot, innovative, and unique programs in occupational education as well as for theoretical and applied research in occupational education. In addition, part C funds are used for partial maintenance of the New York State Research Coordinating Unit (RCU).

The value of part C funds is demonstrated by the purposes for which they have been expended over the years. Internal projects have included a survey of apprenticeships in New York State, a study of teacher effectiveness in occupational areas, an evaluation of occupational guidance programs, and a study of the work patterns of low achieving high school graduates.

Consultant services have been provieed through part C funds to educational agencies for the development of research activities. Examples include an evaluation of the secondary school programs to prepare students for wage earning in health care occupations related to home economics; the planning of an experimental education program in computer aided production of electronic circuitry and systems; and a guided occupational program for intellectually handicapped students. Additionally, in cooperation with other agencies, projects were funded which dealt with educational programs for former drug addicts, and prison inmates. A pilot program was funded which dealt with the application of the extended school year concept to a board of cooperative educational services occupational training program. Copies of the completed studies have been published and distributed throughout the State for use by local educational agencies.

Part C funds have been used to disseminate occupational education information in New York State by establishing a central Educational Resources Information Center (ERIC) at Albany and a network of 32 regional offices throughout the State. The information requests from personnel in local educational agencies have increased over 30 percent each year since its inception.

Part C funds have also been used to conduct research projects for such purposes as: Determining the occupational needs of the disadvantaged; evaluating professional services and educational structures; assisting in the development of current and future curriculums; coordinating statewide occupational research efforts of schools, 2-year colleges, universities, other State agencies and private research organizations; providing all educational agencies in the State with consultative services such as the development of occupational education research proposals for State and/or Federal funding and the evaluation of existing programs; disseminating the results of occupational education research, pilot, demonstration, and experimental programs by means of summary reports to professional groups and other branches of the State Education Department, by inclusion in the ERIC system, and by articles in professional journals; cooperating on an interstate basis with other agencies by sponsoring such activities as regional workshops designed to solve mutual problems and provide mutual reinforcement; and preparing evluation designs and techniques for schools, universities, and other educational agencies.

Part C research moneys have been used to fund two Research and Development Institutes. One of these institutes is located on the campus of the City University of New York in New York City, and the other is on the Cornell campus in Ithaca. The New York City Institute is concerned with surburban and rural occupational education problems.

These institutes seek to meet the needs of the State for viable studies and functions that can improve the climate for occupation education change. The functions of the institutes range from specific responsibilities such as training, to more generalized responsibilities such as general supervision of research innovations. In addition, the institutes are concerned with a wide spectrum of activities which include: Performing basic and applied research in occupational education; conducting conferences and seminars; training researchers in occupational education; preparing occupational education materials for dissemination throughout the State; and supporting graduate students in occupational education research programs.

The institutes have a close tie and serve as an extension of the RCU, working closely and continually with department personnel. Furthermore, the institutes are in communication with professional occupational education associations and organizations, and business and industrial concerns.

The institutes, within the guidelines established by the RCU, have the advantages of flexibility and adaptability. For example, they are able to solicit funds from other State and Federal agencies, private foundations, and private businesses.

The Evaluation Service Center for Occupational Education (ESCOE) which has been in operation since 1970, was designed to create evaluation, instructional, and teacher training tools to help educational agencies develop autonomous curriculums in occupational education. A part of the project is a computerized bank which contains behavioral objectives for various occupational education programs. Faculty from 20 schools, 3 BOCES, and 7 community colleges have been provided training in writing behavioral objectives and correlated test items for the bank. The test component of the bank enables schools to select evaluation measures for the curriculums they offer.

Currently, over 12,500 objectives have been coded and classified in the major occupational education curriculum areas. Plans for fiscal year 1973–74 include: Establishing links with other statewide curriculum systems, establishing ESCOE models in two city school districts and in two BOCES centers, and experimenting in the field with the test items for four different occupational curriculum areas.

ESCOE can benefit nonparticipating schools by providing up-to-date information on occupational education systems building, curriculum development and evaluation and by providing teachers with tested ESCOE materials.

STATE ADVISORY COUNCIL

The members of the State Advisory Council are appointed by the Board of Regents. There are 30 members, each of whom serves a 3-year term. Appointments are arranged so that one third of the membership changes each year.

The council meets 5 times a year with meetings of the various standing committees scheduled in between regular meetings. There is a full-time professional staff member and clerical support employed.

While the council does prepare an annual report and conducts independent evaluations of various elements of the State's program, its conclusions have been supportive of the Education Department efforts and its recommendations for improvement were minimal. The significant impact of the Advisory Council is found in its functions dealing with advice and counsel with respect to program policies and long range and annual planning. As an example, there is a close working relationship between members of the council committee on the State plan and annual report and the staff of the Office of Occupational Education. The council committee meets regularly with the department planning staff to review priorities, budgets, projections, and activities. At each stage of the development of the State plan each year the council committee and department staff work jointly to present to the council recommendations in regard to action to be taken.

The most recent, and probably one of the most effective actions on the part of the council, was its sponsorship and leadership in conducting a 2-day conference for members of local advisory councils. In New York State, each agency operating an occupational education program is required by statute to maintain an advisory council whose membership and functions are patterned after the State Advisory Council.

This conference provided opportunities for local advisory council members to exchange views with each other as well as with members of the State Council. To our knowledge, it is the first time such an activity has been conducted by a State Advisory Council. Members of the Education Department staff participated in the conference and served as resource consultants during workshop sessions. The council utilized a small portion of the funds available to it to pay the expenses of two members from each of the 60 local councils to attend the meeting. Many local councils sent additional participants at their own expense.

It has been found that the State Advisory Council serves a useful function in the conduct of New York State's occupational education program, and its members individually and collecitvely have been able to influence matters of deep concern to the State.

SUMMARY AND RECOMMENDATIONS

The narrative report presented above provides a picture of the growth and expansion of occupational education in New York State during the 10-year period, 1963 to 1973.

The kind of change and increase in providing a delivery system for preparing people for employment was based on several deliberate policies and goals.

Several decisions made early after the enactment of the Vocational Education Act of 1963 contributed significantly to New York State's progress. These include the following:

1. Development of area centers to serve secondary school students, utilizing the Boards of Cooperative Educational Services in order to share in continued operation. Except in the major cities, all expansion of occupational education was vested in the area centers. This policy permitted targeting available Federal funds in large enough amounts to make a difference as opposed to a general "sharing" in the cost of operating existing programs.

2. All postsecondary occupational education was developed in the existing and emerging public community college system, as opposed to establishing separate postsecondary technical institutes or utilizing the secondary level area centers as a competitive system to the community colleges.

3. Federal funds were used, and continue to be used, for program development without the need for a local agency to match these grants or contribute any substantial part of the initial cost of program implementation. This arrangement permitted local agencies to begin new programs without the need to absorb the high cost of startup with local tax levey funds. Continued operating expenses became the responsibility of the local agency. Using Federal funds in this manner has generated increased State and local support for occupational education and has moved the Federal to State and local expenditure ratio to an unprecedented $10 to $1 of Federal money.

The State's priorities have been changed frequently during the 10-year period. In the early years, the key priority was to equalize opportunities for students in suburban and rural areas of the State. Our priorities, therefore, were to concentrate on development of new programs and to construct needed permanent facilities for the area centers. As this system was set in place, priorities shifted to increase efforts to improve the quality of programs and to make significant change in the major cities. At the same time, increased effort was applied to programs for disadvantaged and handicapped persons. Current priorities are: (1) Massive attention to the needs of the cities—most of the funds are now directed to the cities, (2) programs for adults in order to provide training and retraining as needed, (3) establishment of career education demonstration models, and (4) improvement in the quality of occupational education.

The policies with respect to program development and use of Federal funds coupled with continuously changing priorities has produced the framework for a comprehensive system of occupational education in New York State.

Some of the major accomplishments over the 10-year period include:

1. Increase in enrollment at all levels. Overall, there has been a 45 percent increase in enrollments. Enrollments at the secondary level have increased 51 percent, adult enrollments have increased 65 percent, and postsecondary enrollments have increased 268 percent between 1963 and 1973.

2. There has been a shifting emphasis in the pattern of occupational education as represented by the numbers of persons in each of the major occupational fields. While enrollments in all of the occupational fields have increased, the percentage of students in each occupational field has changed signficiantly so that overwhelming proportion of students are no longer in agriculture and home economics.

3. There are now 72 area centers serving secondary level students across the State. The establishment of these centers permits access within reasonable commuting distance for every secondary school student who needs or wants occupational education.

4. Construction of needed permanent facilities for the area centers could not have been accomplished without the use of Federal funds

for partial support. There are now 53 permanent facilities in New York State with a capacity to serve over 60,000 students a day. The total cost of construction of these facilities amounted to $160 million of which $25 million were Federal funds.

5. A new program in consumer and homemaking education was developed using part F funds. This program, conducted in the major cities, primarily is directed toward inner city disadvantaged homemakers and now serves close to 85,000 people. Almost all of the consumer and homemaking funds under part F have been used to establish and maintain these programs. Without the Federal funds, local school districts could not afford a program of this nature.

6. An investment of $1.5 million of Federal vocational education funds has permitted the establishment of 23 career education models strategically located across the State. Each of these model programs is now in either the developmental or demonstration phase. Continued support in the period ahead is needed in order to develop program elements which will meet several of the goals established by the board of regents in its position paper.

With respect to recommendations dealing with the Vocational Education Amendments of 1968, the following are offered:

1. Each year New York State has requests for $4 of Federal funds for every dollar available for distribution. There is a need for increased appropriations to the extent of the authorizations in the statute in order to better meet the needs of people and accelerate the change and expansion which is projected during the next several years.

2. The mandated set asides for disadvantaged, handicapped and postsecondary programs should be removed and the categorical provisions, such as exemplary, cooperative education, work study, should be eliminated. The mandated set asides are restrictive to a State in terms of its long-range planning and establishment of priorities. They permit little flexibility to target against emerging needs within the State. The categorical programs can all be conducted under the present provisions of the basic act, part B. Only simple changes in the language would be needed in order to include consumer and homemaking education under the basic act. Folding in of the categorical programs would again permit the State greater flexibility and allow the State to set its priorities based on clearly identified needs in its long-range plan.

NORTH CAROLINA

State Director—Charles J. Law, Jr.

INTRODUCTION

The North Carolina General Assembly, during its 1963 session, legislated, the Community College Act, which transferred the responsibility for post-high school and adult education programs to the Department of Community Colleges, the exception was that secondary schools could also offer adult agricultural and home economics education programs.

The basic organizational pattern in North Carolina's public schools consists of a kindergarten through grade 14 program. Kindergarten through grade 12 is in the organizational structure of the State Department of Public Instruction.

Twenty area vocational schools and five community colleges became the nucleus of the community college system, by the legislature in 1963. The system has grown to 56 institutions; all 56 are technical institutes with 15 offering college transfer programs and are thereby designated community colleges. There is a postsecondary institution within commuting distance (25 miles) of 90 percent of the population of the State.

Vocational enrollments for both youth and adults have increased significantly from 1963 through 1972, with projections of increased enrollments for fiscal year 1977.

Beginning in fiscal year 1970, the Division of Occupational Education initiated a data collection system reflecting both duplicated and unduplicated enrollment count. Thus, all enrollment figures for fiscal years 1972 and 1977 (projected) throughout this report are unduplicated.

The following table indicates enrollments representative of funding from Federal, State, and local resources for fiscal years 1963, 1968, 1972, and 1977 (projected). The sources of data for enrollment include: (1) Reports submitted to U.S. Office of Education; (2) "North Carolina State Plan For Occupational Education"; and (3) "North Carolina Public Schools, Biennial Report" (report which the State superintendent of public instruction submits to the Governor of North Carolina and members of the general asssembly in compliance with provisions of chapter 115 of the General Statutes of North Carolina).

The chart includes vocational education enrollment figures for both the Department of Public Instruction and the Department of Community Colleges.

Program area	1963	1968	1972	Projected 1977
Agriculture	59, 697	41, 036	33, 768	33, 670
Distribution	11, 421	13, 968	18, 697	46, 398
Health	558	13, 605	28, 389	41, 015
Consumer and homemaking	71, 300	76, 849	127, 823	70, 400
Occupational home economics	(1)	3, 984	18, 187	34, 915
Vocational office	(1)	22, 010	23, 723	85, 130
Trades and industry	11, 845	78, 328	153, 071	282, 151
Introduction to vocations	(1)	16, 001	19, 781	26, 000
Middle grades	(1)	(1)	40, 918	576, 000
Disadvantaged	(1)	(1)	48, 211	41, 700
Handicapped	(1)	(1)	7, 431	68, 100
Technical	11, 594	4, 990	11, 751	22, 600
Totals	166, 415	270, 771	531, 750	1, 328, 079

Not applicable.

PUBLIC LAW 90–576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

a. Job Training Enrollments

North Carolina first received catagorical funds under the Vocational Education Act, as amended in 1968 during the month of May 1970. These funds had a significant impact as "seed" money for greater appropriations to vocational education by local and State governmental and legislative bodies. Because of the history of consistently receiving Federal funds for vocational education, the State has accepted the challenge to the extent that currently every $15 of Federal funds generates an additional $85 of State and local funds.

Funds available have made possible the following bona-fide job training enrollment with projections for 1977. (See chart on following page.)

JOB TRAINING ENROLLMENTS—PART B

Job training area	1963			1968			1972			(Projected) 1977		
	High school	Posthigh school	Adult	High school	Posthigh school	Adult	High school	Posthigh school	Adult	High school	Posthigh school	Adult
Agriculture	39,639		20,058	39,352	731	953	29,807	1,378	2,583	26,105	2,695	4,870
Distributive education	2,237		9,184	12,077	156	1,735	10,695	401	7,601	28,938	1,370	16,090
Health	186		372	228	2,056	11,321	3,670	6,072	18,647	5,370	8,645	27,000
Occupational home economics					67	3,917	3,345	1,142	13,700	7,740	2,175	25,000
Vocational office occupations				5,927	7,788	8,295	6,832	15,272	10,619	38,310	22,720	24,100
Trades and industry	3,492	1,184	7,169	23,922	6,618	47,788	42,418	14,525	96,128	78,806	22,995	180,350
Technical		11,594			3,179	1,811		6,559	5,192		11,480	11,120
Totals	45,554	12,778	36,783	81,506	20,595	75,820	96,767	45,349	154,470	185,269	72,080	288,530

b. General Description of Growth and Development in Federal Job Training Programs for Youth and Adults

(1) *State Department of Public Instruction.*—(*a*) *Agricultural education.*—Course offerings on January 1, 1963, were strictly production agriculture oriented to prepare students for farming occupations.

Because of the decrease in the number of farms and the increase in the employment opportunities in off-farm agricultural related jobs, course offerings in agricultural education were changed in 1963. Beginning July 1, 1963, and continuing through fiscal year 1971, the following job related courses have been offered in the secondary schools:

Agricultural Sales and Services I.
Agricultural Sales and Services II.
Ornamental Horticulture I.
Ornamental Horticulture II.
Pulpwood Production.
Agricultural Cooperative Training I.
Agricultural Cooperative Training II.
Outdoor Recreation and Applied Ecology I.
Outdoor Recreation and Applied Ecology II.

Facilities and equipment for agricultural departments have been changed to reflect the type of program in each school. For example, a school with only an ornamental horticulture program may not have the traditional "shop," but would have a green house, slat house and land laboratory with equipment to train students in a cluster of occupations dealing with ornamental horticulture, landscaping, and turf grass management.

Agricultural education has changed from a program for farm boys to a program for boys and girls in rural and urban situations who have an interest in and need training in agribusiness and natural resources.

(*b*) *Distributive education.*—Prior to 1963, the major effort in distributive education was on training of out-of-school youth and adults. Enrollment in those areas had been 10,000 to 15,000 per year. In the secondary schools, the only programs which could be held were cooperative programs which at that time were limited to the larger cities and relatively small enrollment. Since 1963, distributive education at the secondary school level has been expanded as rapidly as teachers and funds were available. In 1963, 2,237 were enrolled in cooperative programs and preparatory (in-school) programs. Subsequently, through 1972 approximately half of the high school enrollment in distributive education has been in cooperative programs and half in preparatory or specialized programs. Growth at the high school level was from a little over 2,237 in 1963 to about 10,695 in 1972, and is projected to be over 28,938 in 1977. Teacher education programs for distributive education were established in 1970–71 to prepare secondary school teachers. This is showing considerable progress and promises trained teachers for the large program expansion predicted by 1977.

Specialized programs for areas such as food marketing, oil marketing, fashion merchandising, marketing activities have been developed since 1973 and enrollment in these areas is growing. It is projected that these will continue to grow through 1977.

(c) *Health occupations education.*—Health occupations education was augmented in North Carolina during the school year 1963–64 as part of trade and industrial education. This secondary program was an attempt to meet present and predicted needs for health workers within the diverse occupations in the health field.

Health Occupations Education I introduces any student who thinks he or she might be interested in a health career to the concepts of personal, family, and community disease control, to the ethical and professional aspects of health occupations, to communication skills, to nutrition and diet therapy, and to basic sciences.

Health Occupations Education II provides the high school student with instruction in theory and principles of health care and maintenance, related health care information, and basic health care and maintenance skills appropriate to a variety of health careers. Through the cooperation of community health care facilities, the student is oriented to the clinical environment, to the medical team, and to the individual contributions of the health assistant as a member of the health team. (Nurse assistant, male attendent, medical office assistant, dental assistant, ward clerk, receptionist, etc.)

In 1963–64, three pilot programs were established in Wake, Orange, and Alamance Counties. In 1970, Health Occupations Education became an individual section recognized within the Division of Occupational Education with one staff member responsible. The present year, 1972–73, accounts for 93 programs, 97 teachers and approximately 5,421 students statewide. By 1977, based on the available health facilities, approximately 201 programs and 11,577 students could be projected. This is subject to change based on construction of new hospitals and other health agencies about our State.

(d) *Gainful home economics.*—Five occupational home economics courses have evolved over the past 9 years (since 1964) to include training for wage-earning skills in the following areas of employment:

Food services.
Clothing services.
Child care services.
Health and management services.
Home furnishing services.

These courses are taught in 2 hour blocks of time for 1 school year to junior and senior students, and include 50 or more hours of on-the-job observations in a variety of work stations. A cooperative type program is also used in scheduling students for occupational home economics training, often as a second year in the program. At least 1 full year of a comprehensive course in home economics is listed as pre-requisite for electing an occupational program.

(e) *Business and office education.*—Expansion of course offerings in new job fields since 1963 include:

Data processing.
Computer science.
Cooperative office occupations (on-the-job work experience).
Directed office occupations (in-school work experience).
Occupational mix.

(*f*) *Trade and industrial education.* All trade and industrial education courses have greatly expanded during the past 10 years. Greatest expansion has occurred in the following courses:

Industrial cooperative training

The beginning level course introduces students to the world of work and offers occupational training through work experience and related classroom instruction.

Technical drafting

Technical drafting offers the following course units: instruments—care and use, language of line, lettering, geometric construction and orthographic projection. Deminsioning and isometric projection are also important parts of the technical drafting.

Auto mechanics

This course develops skills and understandings needed in making inspections and tests to determine the causes of faulty operation of vehicles and in making repairs or replacing defective parts to restore vehicles to proper operating condition.

Bricklaying

A basic course designed to give practical experience and the necessary related knowledge to those who want to become craftsmen in the bricklaying trade. Emphasis is placed upon developing fundamental skills in handling tools, laying brick, leveling and plumbing brick on straight walls, corners and piers. Practice is given in basic bond layout, building layout, mathematics and science.

(2) *Department of community colleges.*—The development of 1- and 2-year curriculum in the community college system has evolved from 22 offered in 1963 to 190 offered today. Emphasis has been placed on the development of curriculum to provide job entry skills in the following categories in addition to the more traditional curricula offerings:

(*a*) *Agricultural and Biological:*

Agricultural business.
Agricultural chemicals.
Agricultural equipment.
Fish and wildlife management.
Fisheries research and management.
Floral design and shop management.
Food processing.
Forest management.
Recreational grounds management.
Veterinary medical.
Log sawyer.
Dry kiln operator.
Saw filer.
Farriering.

(*b*) *Distributive Education:*

Advertising.
Banking and finance.
Broadcasting.

Hotel and motel management.
Insurance.
Marketing and retailing management.
Photography.
Real estate.
Visual merchandising.

(*c*) *Engineering Technologies:*

Air conditioning and refrigeration.
Architectural.
Electromechanical.
Environmental engineering.
Environmental science.
Furniture drafting and design.
Fire and safety.
Hospital plant engineering.
Industrial management.
Instrumentation.
Marine technology.
Marine science.
Occupational safety and health.
Plastics technology.
Police science.
Textile technology and management.

(*d*) *Health:*

Associate degree nursing.
Dental assistant.
Dental hygienist.
Dental lab technician.
Medical lab assistant.
Nuclear medicine.
Nurse assistant.
Operating room assistant.
Physical therapy assistant.
Radiologic technology.
Environmental health.
Mental health associate.
Inhalation therapy technology.

(*e*) *Home Economics* (*Gainful*)*:*

Early childhood specialist.
Child care worker.
Interior design.
Teacher aide.

(*f*) *Office and Business:*

Accounting.
Business administration.
Computer operator.
Counselor associate.
Library assistant.

(*g*) *Trade and Industrial:*

Aviation management and career pilot.
Culinary science.
Furniture production assistant.
Heavy equipment mechanics.
Heavy equipment operator.
Hospital plant maintenance.
Pottery Production.
Vending machine maintenance.
Waste water treatment plant operator.

Manpower data indicates additional employment opportunities exist in the building trades, metal trades, health fields, aircraft maintenance, public service employment, equipment servicing and maintenance.

We must move to meet these needs through modification of existing programs and establishing new programs.

c. Post Secondary Courses

The postsecondary institutions are open-door institutions which offer a variety of programs to meet needs of people. The primary emphasis continues to be concentrated on occupational education. During fiscal year 1972 these institutions provided instruction for 387,279 young adults and adults (unduplicated count). The following information indicates the number enrolled in each major type of program and the percentage of the total:

	Number enrolled	Percent	Percent
Postsecondary:			
Occupational	46,421	65	
Academic	25,335	35	
Subtotal	71,756	100	18
Adult:			
Occupational	150,718	45	37
Adult education (grades 1-12)	54,835	17	14
Consumer and homemaking	59,946	18	15
General adult	66,273	20	16
Unduplicated subtotal	331,772	100	
Unduplicated grant total	403,528		100

In 1963 there were 24 institutions in operation and they served 7,781 full-time equivalent students in all programs. In 1972 there were 56 institutions in operation and they served 69,579 full-time equivalent students (387,279 unduplicated headcount).

d. Disadvantaged Students

JOB TRAINING ENROLLMENTS—PART B, NORTH CAROLINA, FISCAL YEAR 1972

Program area	Total	Secondary	Postsecondary
Agriculture	4,631	3,641	990
Distribution	1,517	321	1,196
Health	5,323	172	5,151
Occupational home economics	2,968	397	2,571
Vocational office	3,037	104	2,933
Trades and industry	10,446	3,197	7,249
Technical	381		381
Totals	28,303	7,832	20,471

(1) *State Department of Public Instruction.*—During fiscal year 1972, North Carolina served disadvantaged secondary school students who could not succeed in regular occupational training without special program adjustments, special supporting services and/or specially designed occupational curriculum.

Special programs to prepare severly disadvantaged students for entry into a regular program were made available. Many students benefited from opportunities to broaden their knowledge of the world of work—attitudes were changed from a very negative view of the total educational program to a more positive and optimistic view—self confidence was strengthened—new goals were projected—and individuals began to shape plans for the future for the first time in their lives.

The overall effect of utilization of funds for the disadvantaged has been very positive. Public school officials at all levels have been more aware of educational and non-educational problems that this target group of students have and are still facing. This has resulted in more realistic educational opportunities for all students.

Enrollments are not shown for 1963 and 1968 because a special accounting of students identified as being disadvantaged was not kept.

For 1977 the departments of public instruction and community colleges projects that 41,700 youth and adults will be served through programs designed to meet the needs of the disadvantaged.

(2) *Department of Community Colleges.*—The emphasis placed on disadvantaged programs by Congress has provided that needed push to do more for a segment of the population than what was being done previously. Through recruiting and referral efforts, increased numbers of the hardcore disadvantaged are participating in programs that provide guidance, basic education, consumer education and skill development and placement on the job. Remedial classes and tutorial assistance have reduced the attrition rate. Through motivation, orientation, attitude adjustment and the development of positive selfconcept many individuals are proving that they can be successful.

The postsecondary system is dedicated to helping individuals succeed. A large portion of the population of the State have small incomes, lack basic educational knowledge and limited salable skills. This is the group for which we must provide increased services.

Approximately one-half of the group reported has been served through programs funded with part B funds. Increased funding from all sources will provide services for additional individuals which we are not serving at present.

e. Handicapped Students

JOB TRAINING ENROLLMENTS—PART B, NORTH CAROLINA, FISCAL YEAR 1972

Program area	Total	Secondary	Postsecondary
Agriculture	375	231	144
Distribution	295	14	281
Health	435	27	408
Occupational home economics	967	54	913
Vocational office	528	62	466
Trades and industry	2,320	410	1,910
Technical	19		19
Total	4,939	798	4,141

(1) *State Department of Public Instruction.*—During the period of time between 1963–69, very few program efforts existed which were providing specific occupational training for handicapped students and which were funded from vocational education sources usually available to the public schools in our State. Through the State Department of Public Instruction, Division for Special Education, specific programs were provided to offer assistance to handicapped students in areas of academic and social development. Minimal efforts were also provided through that division to provide occupational exploratory opportunities for handicapped students. However, due to the lack of funds and an inadequately trained teaching staff, etc., efforts in the field were feeble at best in areas of occupational training for the handicapped. The Division of Vocational Rehabilitation provided services during the period of time between 1963-69 to older persons who were eligible on a client basis. Most often, these services did not reach public school-aged students; therefore, it is obvious that woefully inadequate programs and services were available to this school-aged target population of handicapped students.

In 1969, 16 programs were funded with categorical moneys to serve the handicapped. By the end of the year, efforts had been proven successful and the State plan for incorporating specific assistance for the handicapped in all occupational education programs was implemented.

Due to a continuation of Federal funds flowing to our State during school year 1970–71, local educational agencies were notified that special efforts would be continued at a financial level of support not less than that required to support personnel employed in their programs. The local agencies were advised of the necessity of small cutbacks in the area of equipment and materials which had been allotted for some programs for the first year. To expedite the renewal of programs for fiscal year 1971, the State agency requested that the local LEA's complete forms providing information in five categories and submit same by the end of the summer. Information was requested in the following five categories:

1. Data relative to persons being served.
2. Utilization of personnel.
3. Inservice training.
4. Funds requested.
5. An updating of the description of existing projects or programs.

As in prior years, teams or committees of State staff personnel, including rehabilitation, special education and representatives from local educational agencies, were assembled to review those programs for which continuation funds were requested. The committees did their work and the programs were reported out favorably and efforts were continued in the field.

During the same year, several administrative units in economically depressed areas of the State (which had very weak programs for the handicapped) requested planning assistance and funds to begin new programs. The Division of Occupational Education solicited and received the advice of the Division for Vocational Rehabilitation and special education. Each of the two divisions provided their recommendations of high priority areas within the State where consideration should be given for funding programs. After those recommendations had been placed with our high priority listing of units and the eventual priorities for the three divisions determined, local educational agencies were contaced and advised of the availability of funds. Each LEA was granted an audience with a team of persons representing the three agencies. As a result, new programs were developed and funded during that fiscal year.

By the end of fiscal year 1971, most of the Federal and State funds set aside to serve handicapped students through occupational education were exhausted. For the most part, only dollars which carried over into the following (fiscal year 1972) were available for implementation of new programs. Therefore, the Division of Occupational Education, the Division for Special Education and the Division for Vocational Rehabilitation agreed that priorities would once again need to be established. Realizing most funds would be available for only one year, the three divisions decided to place priority on funding project proposals which would be designed to support existing programs (which were very weak) in the areas of equipment, materials, supplies and teacher training. Local educational agencies were identified and programs were funded.

In addition to the one year—short term programs which were funded, the three agencies identified specific areas of minor exceptionality which needed attention. Again, local educational agencies were given an opportunity to develop plans for their local programs. This time specific attention was directed toward areas of minor exceptionality, such as programs for the trainable child, the deaf child, the speech-impaired child, etc. Programs were funded and are currently operating in the State.

We feel that we were justified in contributing heavily to the development of sound educational programs in those units which had neglected the needs of handicapped persons. In most cases the lack of local response to needs was due to their inability to finance programs. Without the assistance of Federal funds for this specific purpose, most of the 80 programs currently in operation would be nonexistent.

Enrollments are not shown for 1963 and 1968 because a special accounting of students identified as being handicapped was not kept.

For 1977 the departments of public instruction and community colleges projects that 12,600 youth and adults will be served through programs designed to meet the needs of the handicapped.

(2) *Department of Community Colleges.*—Programs to serve the handicapped have been developed to better meet their needs. Cooperative efforts have been increased between vocational rehabilitation and the sheltered workshops. Institutional programs consist of guidance, basic education, work evaluation and exploration, skill development and job placement.

Conferences have been held and advisory committees have been formed to aid in the development and coordination of the program with other agencies. Emphasis has been placed upon removing architectural barriers and upon providing modified equipment for use by the handicapped. The increased emphasis on the handicapped has produced and increased awareness of needs.

f. Adults

As stated in the Introduction, the department of community colleges has had the major responsibility for adult education since 1963. However, secondary level is also permitted to provide adult agricultural education and home economics education programs.

(1) *State Department of Public Instruction.*—(*a*) *Adult Agricultural Education.*—Adult Education estimated enrollment:

1963, 15,000.
1969, 10,500.
1972, 8,000.
1977 (projected), 7,000.

The enrollment has declined because of:

A decrease in the number of teachers due to consolidation and the addition of other program areas.

An increase in teacher load of classes and number of students in classes.

A deemphasis of adult education by some administrators.

Primary changes and additions to adult education methods and procedures since 1963 include:

1965—Education television—organized adult classes participate in 2[illegible] classes via television each year.

1965—Opportunities for teachers to employ special instructors for unit courses using funds from the department of public instruction.

1970—The use of funds through the department of public instruction to purchase consumable supplies for unit courses.

1970—The possibility of a teacher of agriculture being employed at another school or through the community college system to conduct unit courses.

(*b*) *Home Economics Education.*—In 1963, home economics teachers in North Carolina organized and conducted at lease one adult homemaking class for 10 or more persons on selected topics each year as a part of their regular plan of work. These were reaching as many as 5,000 adults a year across the State with a variety of topics on identified needs. Some individual assistance was offered by the teacher, also. Gradually over the intervening years several factors have contributed to a decrease in adult homemaking education enrollments to the current date. Teaching loads increased for most teachers to exceed the 75 per day recommended to an average of 100 or more for those who teach consumer and homemaking courses all day. With the advent of occupational courses many teachers were acquiring new competencies in summer workshops and inservice education during the school year as they initiated and maintained new occupational programs. Our State board at the same time, approximately 4 years ago, outlined a new policy for adult homemaking education to be organized and conducted through the community college system and pay the home economics teacher to conduct the classes when possible. Also a reluctance on the part of some teachers to organize integrated adult classes (or resistance of communities to such) has caused a decline. Many teachers also describe their school community as predominantly one with working mothers who have little time left for personal growth opportunities.

For these and other reasons perhaps, the current status of adult homemaking education is at a low ebb in North Carolina with possibly less than 500 adults per year attending classes organized and conducted solely by the home economics teacher in a community school.

Two specially funded adult education projects are in operation for the 3 year in North Carolina located in two different HUD projects (Morganton and Graham, North Carolina). These pilot efforts to concentrate on the needs of low-income families are bringing to light some real problems we have in education, and response has been very slow.

Approximately 100 families are being served in the Graham project and 59 in the Morganton project.

(2) *Department of Community Colleges.*—A wide range of courses are offered as preparatory and supplemental training for adults. The adult basic education and adult high school completion programs are not funded from vocational funds; however, they are adjunct programs which assist the individual in successful completion of occupational courses. MDTA programs are also administered within the post-secondary institutions of the State. The following table indicates the number of MDTA projects and student enrollment:

1963	34	916
1968	78	2,224
1972	82	3,034
1977	125	4,000

g. Financing

According to State board of education policy as approved in the State's plan for occupational education, all State and local funds spent for occupational education will follow the same rules and regulations required for Federal vocational education funds.

The State board uses the formula set forth below in determining relative priority of local applications which takes into due consideration the following criteria:

(1) Manpower needs and job opportunities.
(2) Occupational education needs.
(3) Excess cost.
(4) Relative ability to pay.

Allotment Formula

Personnel.—Part B funds under the Vocational Education Act are allocated on the basis of teaching positions and related terms of employment. Total statewide positions are derived by the following processes:

(1) The percentage of students not going to a senior college is multiplied by the total average daily attendance for each local agency.

(2) This resulting number of students is divided by a 25 to 1 student-teacher ratio to determine the number of teaching positions needed by each agency.

(3) As the average term of employment for occuaptional teachers is 10.5 months, the term is multiplied by the above computed number of teaching positions to arrive at 70 percent of total man-months needed by each local educational agency. Based on this 70 percent, total number of man-months needed is determined for each LEA, 100 percent. All LEA 100 percent totals are combined to arrive at the total number of man-months required statewide. With unlimited funds, this would be the total number of man-months that would be allocated.

(4) A percentage of the State's total man-months needed is determined to be attributable to (a) manpower needs and job opportunities 20 percent; (b) occupational education needs, 70 percent; and (c) excess costs, 10 percent.

Local Agency Allocations Are Derived As Follows

Manpower needs and job opportunities.—(1) Each LEA's total labor force is added to the total number or youths unemployed, ages 16 to 24, to arrive at a cumulative index total for the LEA.

(2) A percentage of the State's total labor force and youth unemployment indices is computed for each local agency.

(3) Twenty percent of total State man-months needed is multiplied by each agency's percentage as determined above.

(4) The resulting number of man-months is allocated to supply manpower needs and job opportunities.

Occupational Education needs.—(1) The percentage of students not going to a senior college is multiplied by the total average daily attendance for each agency to produce the number of students needing occupational education.

(2) A percentage of total State students needing occupational education is computed for each local agency.

(3) Seventy percent of total State man-months needed is multiplied by each agency's percentage as determined above.

(4) The resulting number of man-months is allocated to supply occupational education needs.

Excess costs.—(1) As LEA current expenses are largely financed by the State, except for maintenance of plant, excess costs due to local extenuating circumstances are not readily discernible. However, excess costs are due in large measure to nonpromotions and dropouts.

(2) The number of nonpromotions by LEA is multiplied by 3 to arrive at a 75 percent weight factor to arrive at excess cost.

(3) The number of dropouts for each agency is assigned a 25 percent weighting in an excess cost index.

(4) The two weighted factors are combined to arrive at a total excess cost index for each unit. Each unit's percentage of the total State excess cost valuation is then computed.

(5) Ten percent of the total State man-months needed is multiplied by each agency's percentage as determined above.

(6) The resulting number of man-months is allocated to supply excess costs due to local extenuating circumstances.

LEA's relative ability to pay.—(1) Total personal income of each agency is divided by the average daily attendance for that agency.

The result is multiplied by 3 to arrive at a 75 percent weight factor in arriving at an ability-to-pay index.

(2) Equalized property tax valuation for each LEA is also divided by average daily attendance, which is given a 25 percent in arriving at an ability-to-pay index.

(3) The two weightings are combined to provide a comparable index for each agency. Agencies are then ranked as to indices. LEA's with lower rankings are funded at higher percentages. This procedure represents the true funding priorities with respect to each local agency.

(4) This phase of all allotment formula represents the true priority of local applications to one another and the dollar resources to be received by each local educational agency that will come in the reimbursements made based upon the ability-to-pay index. The ranges and percent of reimbursement are as follows:

Ability-to-pay index:

68 percent = Quarter of counties with highest index.

70 percent = Quarter of counties with second highest index.

72 percent = Quarter of counties with third highest index.

74 percent = Quarter of counties with lowest index.

The higher index represents those administrative units most able to pay with the low representing those less able to pay.

Other criteria.—(1) In allocating part B funds, due consideration will be given to disadvantaged and handicapped students through local applications. These criteria are in addition to the procedures set forth above.

(2) Allocations will be made as indicated above to the extent that maintenance of effort, required State/local matching, and reasonable tax effort are maintained.

Special provisions.—(1) The formula as written shows a need far in excess of the available man-months for occupational education. In order to implement this formula as written, additional State and Federal funds would be needed. The formula shows that no unit in the State of North Carolina is receiving the total needed man-months for occupational education.

(2) The formula is fair and shows an equitable distribution of man-months if total needed were available. Since the formula shows that no unit is now receiving all the man-months needed, allocations of additional resources will be made to those units which show the highest priority of need.

(3) Because the formula indicates that all administrative units will not receive the total needed man-months, the State board will not withhold any man-months previously allotted to a local educational agency, but will apply a different reimbursement percentage which controls the amount of resources to be received by local educational agencies. This will be more equitable in distribution of resources based on local ability to pay.

(4) A portion of the resources may be allotted on a basis other than the formula. In making these allocations, the four criteria will be given due consideration. The purpose of these special allotments is to meet requirements of Appalachian, Coastal Plains, and other such construction grants and to alleviate hardship cases that may come to the forefront.

Equipment and materials.—Allotments for equipment and materials will be based on a per capita cost per student, in average daily attendance during the preceding year in the local educational agency. The per capita cost will be based upon the total available funds for instructional equipment and materials. The following reimbursement percentage will apply:

Ability-to-Pay index:

47 percent = Quarter of counties with highest index.
49 percent = Quarter of counties with second highest index.
51 percent = Quarter of counties with third highest index.
53 percent = Quarter of counties with lowest index.

Postsecondary.—The application of criteria in determining relative priority of plans and applications is by standards and procedures established by the State board and reviewed periodically.

Based upon the method of allocation indicated above, a breakdown of part B expenditures for fiscal year 1972, as they related to the total North Carolina population and the total city population, is shown on the following two pages.

North Carolina Department of Public Education, Division of Occupational Education, comparison of 1971-72 expenditures with population

I. Population:	
A. Total North Carolina 1970 population	5,082,059
B. Total city population	354,656
1. Percentage of total	7.0
C. Total EDA population	893,012
1. Percentage of total	17.6

II. Federal and State occupational education expenditures (current expense costs, exclusive of capital improvement).

	Federal	State	Total
A. Total part B expenditures	$11,039,406	$51,219,492	$62,258,898
1. Percentage	17.7	82.3	100.0
2. Secondary	(7,977,075)	(16,774,319)	(24,751,394)
a. Percentage	32.2	67.8	100.0
b. Percentage of total	72.3	32.7	39.8
3. Postsecondary	(3,062,331)	(34,445,173)	(37,507,504)
a. Percentage	8.2	91.8	100.0
b. Percentage of total	27.7	67.3	60.2
4. Total city	$432,928	$3,189,796	$3,622,724
a. Percentage	12.0	88.0	100.0
b. Percentage of total	3.9	6.2	5.8
5. Total EDA	$2,656,458	$9,873,527	$12,530,030
a. Percentage	21.2	78.8	100.0
b. Percentage of total	24.1	19.3	20.1
B. Total city expenditures	$432,928	$3,189,796	$3,622,724
1. Secondary	$219,604	$465,140	$684,744
a. Percentage	32.1	67.9	100.0
b. Percentage of total, secondary	2.7	2.8	2.8
c. Percentage of total	2.0	1.0	1.1
2. Postsecondary	$213,324	$2,724,656	$2,937,980
a. Percentage	7.3	92.7	100.0
b. Percentage of total, Postsecondary	7.0	7.9	7.8
c. Percentage of total	1.9	5.3	4.7
C. Total EDA expenditures:			
1. Secondary	$2,102,489	$3,272,558	$5,375,047
a. Percentage	39.1	60.9	100.0
b. Percentage of total, secondary	26.3	19.5	21.7
c. Percentage of total	19.0	6.4	8.6
2. Postsecondary	$553,969	$6,601,014	$7,154,983
a. Percentage	7.7	92.3	100.0
b. Percentage of total, postsecondary	18.1	19.2	19.1
c. Percentage of total	5.0	12.9	11.5

The rationale why City expenditures do not relate to population is due to the Federal requirement of relative ability to pay. Those local educational agencies with higher levels of personal income and property tax valuation per student in average daily attendance receive less in State and Federal resources than do other agencies in the State. Such is the case with the indicated City expenditures, below the population relationship, which are incurred by agencies with a greater ability to pay for their occupational programs. From a similar standpoint, EDA expenditures from State and Federal sources, incurred by agencies less able to pay for their own programs, also do not relate exactly to population, but are in excess of this relationship.

h. Construction and Equipment

(1) *State Department of Public Instruction:*

Construction.—Funds for the construction of vocational education facilities were expended during the fiscal years of 1969–70 and 1970–71. The former consisted of $945,850 in State funds which was matched locally with a similar amount. The 1970 amount was $650,000, likewise, was matched with local funds.

Estimates for needed additional facilities for vocational education, excluding the 29 counties in the Appalachian region for a 4-year period (1972–77) range from $3,750,000 to $5,450,000.

Equipment.—Matching funds in the amount of $974,548 have been provided annually by the local educational agencies since 1963. State money in this area has been maintained at this level, but with the increase in the number of programs, support actually is becoming less each year.

The total of State/local funds expended from 1963 through 1968 was $11,694,576. From 1969 through 1972 the amount was $5,847,208. Projections for 1973 to 1977 would be anticipated at the same rate—approximately $7,796,384.

(2) *Department of Community Colleges:*

CONSTRUCTION:

	Federal		State	Loca
	Vo-Ed	Other		
1963-68	$3,325,000	$17,585,700	$9,809,813	$24,420,000
1969-72	3,160,000	8,792,850	3,250,000	12,210,000
1973-77	2,660,000	0	25,418,813	[1] 15,000,000
Total	9,145,000	26,378,550	38,478,626	51,630,000

[1] There will be some Revenue Sharing funds in this figure.

The North Carolina community college system through fiscal 1973 has constructed 4,461,746 permanent gross square feet at 53 institutes. The system has, with current enrollment, approximately 80 square feet per FTE. The national target is 125 square feet per FTE. With the projected FTE and funding over the next 5 years the system will still have less space than that recommended by the U.S. Office of Education.

Equipment

1963—68	$23,247,035
1969—72	13,872,362
1973—77	20,000,000
Total	57,119,397

a. Exemplary

North Carolina established exemplary programs and projects (part D) during fiscal year 1970–71. Federal allotment in May 1970 for fiscal year 1970 was $133,491 which carried forward to fiscal year 1971. Federal allotment for fiscal year 1971 was $173,930 with a carry forward of $172,254 for fiscal year 1972. Federal allotment for fiscal year 1972 was $173,003 with a carry forward of $83,842 for fiscal year 1973. (North Carolina can only report enrollments for fiscal year 1972 and fiscal year 1977 (projected).)

(1) *State Department of Public Instruction.*—In its efforts to have a major impact in developmental efforts of research and implementation, the agency allocated sizable grants to local educational agencies. Results have indicated that where sufficient funds are provided in a concentrated area, direct results are noticeable. Projects funded are as follows:

Title	*Persons Involved*
Developing an appreciation of the world of work.	IV teachers, guidance personnel, and full-time counselors.
Staff and program development for occupational exploration in middle grades.	Provided a summer institute in leadership training for 20 occupational exploration teachers.
Pre-vocational education	Provided a program for 800 8th and 9th grade students—190 disadvantaged and 11 handicapped.
Intensive counseling—work experience and placement of selected disadvantaged high school youth.	100 selected students—85 disadvantaged and potential dropouts.
Career exploration laboratory on wheels (Dare-Hyde and Tyrrell Counties) (started fiscal year 1972).	1,130 students.
Pilot career development program—Washington County, (started fiscal year 1972.)	400 students.
Pilot mountain crafts occupational program.	50 students.

(2) *Department of Community Colleges.*—The projects funded have received supplemental instruction, 4,649 adults were enrolled in programs and services to the disadvantaged through a mobile classroom and counseling center; development of courses for minority businessmen; guidance, counseling and education of prison inmates; development of job placement programs; development of new teaching techniques and individualized teaching materials; improved guidance programs; developing an understanding of what factors impede learning; and the development of reading material which couples reading improvement with occupational information.

There are 34 projects which have been funded with an involvement of approximately 2,760 individuals. The individuals which will benefit from the results of these projects will number in the thousands.

Title	*Persons involved*
Caldwell Community College and technical institute project.	Evaluation of curricular offerings.
Roanoke-Chowan Technical Institute project.	450 students—mostly disadvantaged.
Southwestern Technical Institute project.	Provided instruction for 100 more FTE students.
Beaufort County Technical Institute project.	Followup survey of graduates at their places of employment—93 percent employed; 72 percent employed in closely related field.
Edgecombe County Technical Institute project.	Community lay leaders and administrators.
Gaston College project	30 from a youth offenders' camp participated.
Isothermal Community College project.	Aid to honor-grade felons—50 to 100 trained each year.
Johnston Technical Institue project	Planning stage.
Vance County Technical Institute project.	Workshop for counselors, instructors, and representatives of ESC, business and industry.

c. *Consumer and Homemaking*

Public Law 90-576, the Vocational Education Act of 1963 as amended in 1968 states that part F funds can be used only for consumer and homemaking programs. Gainful home economics is funded only through part B of the act. Under part F in the "rules and regulations" no designation is required in reporting enrollment under disadvantaged and handicapped. North Carolina does meet the requirement of expending one third of part F funds in economically depressed areas. (See chart on following page.)

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged[1]	Handicapped[1]	Total	Disadvantaged	Handicapped
Secondary	59,530	68,360	67	67,682	(2)	(2)	3,345	397	54
Adult	11,770	8,489	3,917	60,141	(2)	(2)	14,842	2,571	913
Total	71,300	76,849	3,984	127,823	(2)	(2)	18,187	2,968	967

[1] One-third of part F in economically depressed areas (20,000).
[2] Not available.

(1) *State Department of Public Instruction.*—Since approximately ⅛ of all school units in North Carolina can be classified as being in economically depressed areas, and these LEA's have consumer and homemaking education programs, we feel that North Carolina is regularly meeting the needs of economically depressed families. Of the total enrollment (67,682) at least 20,000 students are enrolled in schools located in areas identified by the U.S. Department of Commerce as economically depressed. About 4 years ago specially designed inservice education programs were delivered to home economics teachers in those 55 LEA's with specific assistance offered as followup encouragement to modify programs specifically for the needs of these families. Other subsequent inservice education programs in areas of consumer education, family relations, and practical ideas for teaching home economics to economically depressed students have been scheduled over the past 4 years, and will continue. Several versions of a special funded "Dual-Role Homemaker" project are currently in operation, also to provide new directions for economically deprived students to acquire simultaneously their homemaking and wage-earning skills. These five projects are serving 459 students directly and over 1,000 indirectly in their schools.

An increasing number of home economics teachers are assuming teaching assignments for groups of disadvantaged students in their occupational home economics courses. Of the 3,345 students electing an occupational home economics course in 1971–72, approximately one third could be classified as being disadvantaged. Two specially funded programs under part 102b of the 1968 vocational amendments were for home economics programs during the past year for approximately $40,000 (total). One was for school-aged mothers and pregnant girls who had dropped out of school; care for their infant children was provided in a laboratory setting and all girls enrolled in a full high school program, with 17 graduating June, 1973. The other program focused on improving an individual student's sefl-concept through a team-teaching approach in laboratory, classroom and field-trip experiences as well as on the job experience. This group was co-ed and also economically deprived. Results in terms of improved self-concepts and attitudes toward society, work, and so forth, have been outstanding.

(2) *Department of community colleges.*—Consumer and homemaking courses were provided to approximately 60,000 individuals last year. Courses included sewing for the family, food nutrition, marketing, credit purchasing, budgeting, child care, family life, health, and hygiene.

Gainful employment courses offered are reported in the occupational adult category. Courses included in this group as child care worker; garment sewing; food management, production and serving; interior design; cake decorating and commercial flower arrangement.

b. Residential vocational education

The North Carolina State Board of Education has to date expressed no interest in the residential school concept for vocational education. Their desire to expand and improve regular programs is a priority.

d. Cooperative education—part G

North Carolina established cooperative vocational education (part G) during fiscal year 1971.

In the 3 years that part G programs have been in operation approximately 40 local communities, not previously having cooperative opportunities available to secondary students and local businesses, have been provided this benefit. North Carolina has had extensive cooperative vocational education programs for many years under the auspices of what has been known as basic grant funds. The new flexibility, however, of the requirements for part G programs has allowed the State to offer programs in communities not previously touched.

North Carolina can only report part G enrollments for fiscal year 1972, with realization that should such funds remain available enrollment would more than triple by 1977.

Program area	Fiscal year 1972, secondary enrollment		Fiscal year 1972, postsecondary enrollment	
	Part G	Part B	Part G	Part B
Agriculture	221	729		
Distribution	332	7,148	8	
Health	103	798	5	
Occupational home economics	4	531	10	
Office	222	2,779	204	136
Technical			256	30
Trades and industry	319	6,465	198	45
Total	1,201	18,450	681	211

e. Work-Study Programs

(1) *State Department of Public Instruction.*—Because of the more stable funding of the work-study program in the last few years significant impact has been made toward keeping youths economically disadvantaged in vocational education programs and in school. The erratic funding prior to 1970, however, created many problems and almost destroyed the program with local school districts because they would recruit students and then not have funds to follow through.

In North Carolina, local school administrators tell us that this program has been much more effected than the Office of Economic Opportunities (OEO) programs because a core of instruction is related to the area in which the student is working. Instead of the student just sweeping floors or picking up gravel on the school grounds for pay, through an organized work plan his earning of money becomes a class related experience.

The enrollment history of students in work-study programs is as follows:

1963	150
1968	200
1972	377
1977 (projected, assuming funds available)	10,500

During fiscal year 1972, 88 of the 152 local educational agencies participated in the work-study program. The total allocations were spent on student compensation.

The number of youth in North Carolina eligible for assistance under the provisions of part H far exceed the funds available for this purpose.

One major concern with the work-study program, however, is that Congress must adjust the law to provide for more adequate compensation. The present law stipulates that a student may not exceed 15 hours in any week nor $45 per month, or $350 per academic year. When the average hourly wage rate was 75 cents at the time the act was first passed, this regulation was acceptable. However, since that time the national average is approaching $2 per hour, which means that a student, in order to stay within the regulations, can work no more than 22½ hours per month or approximately 6 hours per week. Since this program is used in many instances in conjunction with cooperative education, this means a student cannot meet the minimum 15-hours requirement of the cooperative program. If the work-study program is to continue as an effective tool, North Carolina feels that this regulation and law must be changed.

(2) *Department of community colleges.*—The erratic funding of work-study has created some problems in the administration of this program. Progress has been possible and individuals have been helped to stay in school and prepare for a job. The following table indicates the growth in the number of students in work-study:

1963	65
1968	292
1972	380
1977	700

College work study has been available to several of our institutions; therefore, the number indicated reflects only the vocational work-study program but does not include the number of technical students that have received assistance from college work-study.

f. Research and Training

Part C funds have provided the resources to find answers to numerous problems that have impeded the growth and development of occupational education in North Carolina. It has helped to identify strengths and weaknesses of existing programs as well as the isolation of factors relating to these conditions. Resulting from this type of problem-solving research have come useful recommendations for changes and improvements in State and local programs.

More importantly, however, the research program has been concerned with pragmatic development which is needed to undergird needed innovative occupational education programs. In other words, efforts were made to gleem from existing research new theories, concept and approaches and mold and develop them into new instructional models, systems and materials, which were then fieldtested and evaluated for potential installation in regular occupational education programs. This kind of research has contributed to the development off curriculums in practically every area of occupational education. Growing out of such research efforts have come numerous new instructional techniques, curriculum guides, audiovisual systems and materials, and a variety of other supporting instructional materials.

In addition, part C funds have provided the support for a system of disseminating occupational research results and information, including not only that produced in North Carolina but from across the Nation. But more specifically it has provided the State an opportunity to experiment with or pilot new programs growing out of research. It has provided some risk capital to try out and evaluate innovations that would not have been available without such funding. As a result, many of the innovations which are now a part of the regular vocational program would likely have never been tested.

Finally, part C funds have been instrumental in developing systems for providing planning information for long- and short-range planning of State and local vocational education programs. Research in this area has provided special data analyses essential to the planning effort and has developed a system for using a combination of secondary data sources to determine manpower requirement and occupational training needs to be met by the State agency.

The following are brief summaries of two important research projects that have been supported by part C research funds:

(1) *Establishment of an "Information Center" at Forsyth Technical Institute to Design a System for Collecting and Progressing Manpower Information at the Local Level.*—The North Carolina Department of Community Colleges is completing the third of three studies which deal with long-range planning for the North Carolina community college system. Following the first study which developed a concept for and a local-level plan for institutions in the system, this third study has developed the systems or models for gathering the particular local manpower planning information required and is currently completing the packaging of the local manpower information into a format that will make it easy to use by planners, administrators, and instructors. The product of the project will be an Institution Manpower Information Collection System Manual which will describe the information system and contain the details on how it is established and used.

(2) *The Development and Implementation of an Individually Scheduled Cluster Curriculum in Occupational Education.*—This project is basically designed to restructure occupational education in the secondary schools. The project, conducted by the Sanford City schools, proposes to design occupational programs so that they become more flexible, easier to enter, and accessable to more students.

Involved in the project is the development of an occupational resources learning center. In the course of studies there will be six occupational clusters that will be individually packaged including the multimedia (masonry, carpentry, metals, drafting, distributive education, and typing). Other courses will be reorganized in the mini-course concept of nine week duration. Included in the $203,927 grant, the distributive education program is being developed through a 10 state consortium. A cluster guide booklet and the identification of individual jobs and tasks relative to the courses available in Sanford and vicinity has been completed. Continuous previewing of instructional materials and several visitations were made during the early stages of this project. A contractural arrangement with R.C.A. has been made for aid in the program development. An advanced typing program from Automated Instruction, Inc., will be provided for the vocational business area.

At the conclusion of the Sanford project in September 1973, instructional materials, guide booklets, and a plan for a specialized staff development program will be made available to educational institutions interested in vocational areas.

STATE ADVISORY COUNCIL

The major contributions of State advisory council on vocational education in North Carolina (since 1969) are as follows:

Held 18 regular meetings plus numerous subcommittee meetings.

Financed evaluation studies on:

Current status of occupational education in North Carolina

Image of occupational education.

Relationship of program enrollments and manpower demand.

Evaluation of teacher education programs.

Evaluation of occupational education as viewed by administrators.

Evaluation of occupational education as viewed by teachers.

Extent of use of citizens advisory groups.

Publications of State advisory council:

Annual evaluation reports (4):

Professional development of administrators, vocational education teachers, and support personnel for occupational education programs in North Carolina.

Needed! Top priority for occupational education.

Learning a living in North Carolina.

Involving citizens and citizens groups in planning and evaluating occupational education programs.

Solicitation of citizens views concerning occupational education:

	Number of meetings	Attendance
Year:		
1970	1	25
1971	1	15
1972	3	525
1973	8	800

Advised on development of State plan for occupational education

Major areas promotional by State advisory council:

Increased availability of program.

Safety.

Effective use of lay citizens groups.

Professional development programs.

Youth organizations.

Downward extension of programs toward career awareness and career exploration.

Guidance.
Changes in funding procedure.
Articulation of secondary-postsecondary programs.
Data collection system.
Expansion of support for programs.
Program quality.
Placement and followup.
Public understanding.

SUMMARY AND RECOMMENDATIONS

Summary

The Vocational Education Act of 1963 and the 1968 Amendments (Public Law 90-576) were significant mileposts in the development of vocational/technical education in the Nation's public schools. The impact of these significant acts of the Congress of the United States upon the expansion and improvement of such education and training is well documented in the data presented in this report. From an analysis of these data one can cite the following significant achievements in North Carolina during the 10-year period 1963–73.

Secondary schools

Total enrollment in vocational education programs increased from 45,554 in 1963 to 113,782 in 1972.

Total enrollment in consumer/homemaking education increased from 59,530 in 1963 to 67,682 in 1972.

Total enrollment in career exploration programs in middle schools (grades 7-9) increased from 2,410 in 1963 to 60,699 in 1972.

Significant diversification of program offerings has occurred during the 10-year period. There are 388 high schools in the State. By 1973—

83 percent offered agricultural education.
60 percent offered distributive education.
20 percent offered health occupations education.
36 percent offered Home economics (gainful) occupations.
54 percent offered office occupations.
97 percent offered trade and industrial education.
100 percent offered consumer/homemaking education.

Career exploration programs have been implemented in 588 or 59.7 percent of the State's 985 middle schools (grades 7-9).

A very significant response has been made toward meeting the unique needs of the disadvantaged students. By 1972 13,752 students were enrolled in special designed programs and/or receiving special services.

A very significant response has been made toward meeting the unique needs of the handicapped students. By 1972 3,263 students were enrolled in special designed programs and/or receiving special services.

Postsecondary schools

The number of post-secondary schools has increased from 16 in 1963 to 56 in 1973. By 1973 a postsecondary school was within communicating distance of 90 percent of the State's population.

Enrollment in vocational/technical curriculums increased from 12,778 in 1963 to 45,389 in 1972.

Enrollment in adult preparatory and supplementary programs increased from 48,553 in 1963 to 264,721 in 1972.

A significant response to the unique needs of disadvantaged adults through remedial basic education, motivated training as well as skill training is in evidence within the 56 postsecondary schools with 34,459 persons receiving training and/or supportive services in 1972.

A significant response to the unique needs of handicapped adults is in evidence within the 56 postsecondary schools with 4,168 persons receiving training and/or supportive services in 1972.

Multilevel (general observations)

New facilities for occupational education have been constructed throughout the State, especially in the Appalachian region, utilizing a combination of Federal (ARC–211), local and State funds for construction.

Significant improvement of instructional equipment and teaching materials is noted.

Program offerings and enrollments have been redirected to better reflect projected labor market needs as a result of emphasis on State and local long-range planning.

State board of education has been able to provide more adequate State-level leadership in the administration and supervision of programs and other related ancillary services.

The organization of a State advisory council on vocational education and the advice and support of this council has been significant. More than half of the local educational agencies now have counterpart councils working with local school personnel in planning and evaluating occupational education programs.

Citizens throughout the State have become concerned about the quantity, quality, and relevance of occupational education in their schools, especially at the secondary school level. Inadequate funds have and continue to be a serious constraint in responding to the concerns of the State's citizens.

In conclusion, there is no question about the positive impact that the Vocational Education Act of 1963 and the 1968 amendments (Public Law 90–576) have had on occupational education in North Carolina. The relative small amount of Federal funds allocated to North Carolina has provided significant incentive to the State and local governments to provide additional funds in support of more and better occupational educational opportunities for youth and adults. As a result, North Carolina has a much better trained labor force than was available in 1963. North Carolina has one of the lowest rates of unemployment in the Nation. Also the State experienced significant economic growth during the past decade. Much of this growth can be attributed to expanded programs of occupational education in the secondary and post-secondary schools.

Recommendations

Based on the data summarized and experienced over the past 10 years in administering the State's program of vocational/technical education, we should like to submit the following recommendations:

1. That Public Law 90–576 be extended for a period of not less than 5 years and that funds authorized in this act be increased to levels reflected in the long-range plans developed by the State boards of education.
2. That an indepth review of Public Law 90–576, involving State directors of vocational education, be made during fiscal year 1974 to identify and develop proposals for improving this significant act based upon an assessment of progress made since 1963 and problems encountered in administering its provisions.
3. That the Congress reject the proposal to provide Federal aid for vocational education through revenue sharing.
4. That the Congress appropriate funds for vocational education at least 6 months prior to the beginning of the fiscal year during which the funds will be available for expenditure, in order to provide State boards sufficient leadtime to plan wisely for the effective and efficient use of such funds.
5. That the Congress take such steps as necessary to assure that no part of funds appropriated by the Congress for State aid for vocational education is impounded.
6. That the provisions of Public Law 90–576 with respect to State advisory councils for vocational education be continued and funds provided to support the activities of the State councils.
7. That any further regionalization of the services of the U.S. Office of Education be halted and that steps be taken to restore the leadership role of the Bureau of Adult, Vocational, and Technical Education in the Department of Health, Education and Welfare.

NORTH DAKOTA

State Director—Carrol E. Burchinal

INTRODUCTION

This report briefly describes the changes and accomplishments in vocational education in North Dakota since 1964. Our data significantly reflects the impact the Vocational Education Amendments of 1968 has had on a rural state such as North Dakota. This legislation substantially increased the support for vocational education and more specifically broadened the scope of vitally needed services for students desiring less than a baccalaureate degree. The Congress, as a result of this legislation, more distinctly identified the role of the Federal Government in providing for urgent needs of both youth and adults in our technical and ever-changing society. The Congress again reassured its stand in support of the Vocational Education Act by extending the provisions in its amendments in 1972. The following enrollment data reflects the impact of the legislation aforementioned:

1964	20, 114
1968	20, 509
1972	32, 637
1977 (projected)	39, 154

a. Job training enrollments

	1964	1968	1972	1977
Secondary	2, 987	6, 000	9, 500	14, 588
Postsecondary	1, 668	2, 699	4, 246	4, 916
Adult	6, 100	2, 022	5, 513	5, 750
Total	10, 755	10, 721	19, 259	25, 254

b. General description

The 1968 amendments provided the leadership necessary to broaden the scope of vocational education. North Dakota recognized the need for trade and technical offerings at the secondary level and expansion at the postsecondary level. Two secondary and four postsecondary schools were designated as area centers. Special State legislation authorized and provided funds for expansion in three of the designated postsecondary centers.

c. Postsecondary courses

The State board for vocational education designated three junior colleges as area vocational-technical centers. Enrollments in vocational-technical education at the postsecondary level has tripled the past 10 years.

d. Disadvantaged students

1964	(1)
1968, special needs	171
1972	3,385
1977	9,060

[1] Not reported.

As a result of the 15-percent set-aside provisions of part B, supportive supplementary services are being provided to vocational education students unable to succeed in regular vocational educational programs. In addition, a great impact has been made in our State as a result of modified vocational education programs for the disadvantaged youth and adults. As a result of the cooperative efforts between various State agencies, comprehensive supplemental and job training activities have been implemented allowing disadvantaged persons to successfully compete for jobs in the labor market.

e. Handicapped students

1964	(1)
1968	[2]171
1972	422
1977	1,400

[1] Not reported.
[2] Special needs.

Prior to the 1968 amendments, very little attention had been given to the vocationally oriented handicapped in North Dakota especially the educable retarded. A great deal of effort has been made and the 10-percent set-aside has had a tremendous impact on this target group. As a result of various State agencies combining the resources available, both State and Federal, excellent programs have been implemented.

f. Adults

1964	6,100
1968	3,120
1972	8,263
1977	6,325

Manpower development and training:

1964	273
1968	352
1972	664
1977	800

g. Financing

Four factors are considered in the distribution of part B funds as follows: (1) Labor market needs; (2) vocational education needs; (3) ability for the local educational agency to pay, and (4) excessive costs. Major consideration is given to the ability to pay factor. The part B formula used in distributing both State and Federal funds is in a range of 40 to 60 percent of costs for instructional salaries, equipment, and travel. The ability to pay is established by determining the potential taxable wealth on each student in each district.

North Dakota does not have a disparity between its city and rural population. Approximately 60 percent of the funds received by the local schools funded under part B are Federal and the balance is State. A significant increase in State support for vocational education has surfaced. Federal funds have not met the increased demands for the programs or the increased costs of vocational education.

Expenditures for part B programs:

1964:	
Federal	$418, 956
State/local	756, 488
1968:	
Federal	1, 262, 873
State/local	2, 417, 302
1972:	
Federal	1, 469, 495
State/local	3, 041, 794
1977:	
Federal	3, 000, 000
State/local	5, 000, 000

h. Construction and Equipment

1964:	
Federal	(1)
State/local	(1)
1968:	
Federal	$250, 000
State/local	250, 000
1972:[2]	
Federal	129, 468
State/local	129, 468
1977:	
Federal	200, 000
State/local	300, 000

[1] Not reported.
[2] Instructional equipment only.

OTHER FEDERAL PROGRAMS

102(b) Special needs.—Funds under this part of the act have been used primarily for modified vocational education programs on the four Indian reservations and the State industrial school for delinquent youths. This has been an excellent source of Federal funds with no matching required and has provided vocational opportunities for disadvantaged students from high youth unemployment areas.

a. Exemplary programs and projects

1972

Summer exploratory program in carrer development was continued for the third year. Two hundred students were served;

Curriculum development in simulated office education and a coordinators' guideline for cooperative vocational programs was developed;

Model curriculum was developed in agribusiness and natural resources;

Model resource learning center was developed for postsecondary vocational education;

Model program was developed for disadvantaged youth to familiarize this target group with career opportunities, provide occupational counseling, improve the vocational curriculum, and provide work experience through this program. Two hundred students were served.

1977 (projected)

Exemplary funds have been used to develop meaningful, effective programs which will be funded by the regular State programs. Part D of the act is a valuable source of funds needed in order to experiment and find new innovative means to provide vocational and career education opportunities which are unique to our rural State. Career education will probably receive priority for funding from this source.

b. Residential vocational education

With North Dakota's sparsity in population, multidistrict programs may necessitate residential vocational education in order to reach out to more students who currently do not have access to any type of vocational education.

c. Consumer homemaking and occupational home economics

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

		1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
	1962-63 (fiscal year 1963) vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	6,550	7,277	83	9,091	(3,157)	(203)	276	(99)	(57)
Adult	2,809	2,314	198	2,705	(1,003)	(4)	154	0	0
Total	9,359	9,591	281	11,796	(4,160)	(207)	430	(99)	(57)

As a result of legislation for Consumer and homemaking the number of adults served in depressed areas has increased from none to almost 900 in a project entitled "Consumers in the Know." Instructional materials related to the home economics aspect of career education were developed and used successfully to help these rural students become better prepared for the world of work. During fiscal year 1973 instructional materials are being developed and tried out with approximately 500 boys and girls enrolled in the secondary program in depressed areas. Some of the units being developed include "Teenage Rebellion", "Bridging the Generation Gap", "What to Do in Case of Financial Crisis" etc. Without this special funding these materials could not have been developed .

Consumer and homemaking funds have been used for two special projects for Senior Citizens in two city adult programs. In one of these cities, which is a model cities area, adults enrolled in basic education were given special home economics classes related to their needs as consumers.

d. Cooperative Vocational Education

1964, 179.
1968, 500.
1972, 1,218.
1977, 2,500.

Part G of the act has been most beneficial to the rural States because of the limited student population in secondary schools. Most schools cannot economically provide a comprehensive vocational education offering. Cooperative programs have been successful in utilizing the business sector by providing vocational opportunities which normally cannot be provided in most school settings in North Dakota. A major portion of the expansion of vocational offerings in North Dakota is a direct result of the availability of funds from part G of the act. More new programs were implemented under part G than any other source except the disadvantaged set-aside provision of part B.

e. Work Study

The 1968 Amendments include provisions under part H of the act for vocational work-study programs for vocational-technical education students.

Work-study programs have made it possible for many students to enter or stay in school and pursue their vocational-technical education objective. In addition, such employment provides youth the opportunities to develop work attitudes, occupational skills, abilities, and knowledges essential to their future.

Vocational work-study students served:
1963, none.
1968, 134.
1972, 85.
1977, 150.

f. Research and Training

Part C funds provide an opportunity for vocational educators to explore and experiment with new techniques which are not able to be tested under regular program funding. These funds are made available to educators on a grass roots level as well as on a higher education or preparation level in an attempt to involve more directly those people who ultimately are in the position to benefit directly from the efforts of research and development activities. The key to these activities, however, is that they are in a position to guide, conduct, and control the destiny of the research activities. The cooperation and expertise of those involved is thereby assured.

Two projects in North Dakota which exemplify this research philosophy are a Power Plant Operators Training Course which will have nationwide impact, and a farm management program which will serve many farmers and students statewide. With the emergency of Lignite Plants for power in North Dakota, the training program will provide leadership personnel through a union, private industry, and public education cooperative effort. Farm management improvement is essential to provide increased efficiency in farm grown products.

Advisory councils

A Master Plan Committee for vocational education submitted 78 recommendations to the State Board for Vocational Education in 1970. A status report presented to the Advisory Council for Vocational Education in 1973 regarding the 78 recommendations reflected substantial progress toward implementation of the committee's recommendations.

An excellent working relation exists between the Advisory Council and the State Board for Vocational Education. The Advisory Council concept has provided effective input from an excellent cross-representation of the general public whose interest is exemplified by the active role in vocational education assumed by the council.

Annual reports on the progress of vocational education together with recommendations have been submitted to the State Board for

Vocational Education each year as required by law. The State Board has favorably accepted most of these recommendations and action has been taken to implement them.

The Advisory Council has promoted vocational education to the general public through the development of brochures and TV films.

The Advisory Council is presently conducting a formal evaluation of the total vocational offerings in North Dakota at all levels of education. A complete report of this evaluation together with recommendations will be made to the State Board for Vocational Education and to the citizens of North Dakota.

The Advisory Council has acted as an agency to which individuals or agencies may express their concerns regarding vocational education in our State.

Summary and recommendations

The 1963 Vocational Education Act and subsequent amendments must be considered as the most effective legislation passed by Congress concerning vocational education. The results of this legislation must be gratifying to Members of Congress when the Congress assured the general public of the satisfaction of the 1968 legislation by extending the 1968 amendments with virtually no changes in 1972.

North Dakota has made full utilization of the provisions of the Act and has been able to successfully broaden the services to all the target groups and levels of education only because the Congress had the vision and foresight to implement such a historical piece of legislation.

RECOMMENDATIONS

1. It is imperative that vocational education receive greater fiscal attention than ever before if Congress deems it necessary to place vocational education in its rightful place in our everchanging technological society.
2. The Vocational Education Act, as amended, is receptive and responsive to meeting the current needs of our youth and adults, labor and industry, and special target groups.
3. Vocational education may lose its identity and effectiveness if the current legislation is repealed.

The following concern and comments are in reference to the Better Schools Act:

1. Transfer out provisions of the vocational education component.
   a. Thirty percent without the Commissioner's approval.
   b. Up to 100 percent upon the approval of the Commissioner.
2. No provisions for disadvantaged, handicapped, consumer and homemaking, advisory councils, and State level administration.
3. Congressional priorities for investment in quality educational programs of the national concern would be jeopardized.
4. Findings and purposes under the Better Schools Act states, "to encourage greater attention to the vital field of vocational education." In North Dakota this proposed legislation would do little if anything to promote this concept particularly if the State loses $450,000 as proposed in the President's budget for the Better Schools Act.
5. It is inconceivable that Congress would favor such legislation in view of historically successful results of past and current legislation and the support given to vocational education legislation.

OHIO

State Director—Byrl R. Shoemaker

TOTAL VOCATIONAL EDUCATION ENROLLMENT

Total vocational enrollments—all programs

1963	138,523
1968	262,583
1972	447,157
Goal for 1977 [1]	2,004,733

[1] Based on objectives projected to 1977 and increased funding to provide services to youth and adults.

One of the most significant educational movements in the State of Ohio since 1963 has been the growth and development of vocational education services to youth and adults. The Vocational Education Acts of 1963 and the Vocational Education Amendments of 1968 changed the goals, scope, and quantity of vocational education offered in cooperation with the public education of our Nation. These acts did much more than expand and extend the vocational education movement in Ohio—they redirected the movement toward social and economic goals. Vocational education had, since 1918, been concerned with providing skills and knowledge necessary for employment to youth and adults. The thrust of the new act was to make youth and adults employable with all that the term envisions. The Vocational Education Act of 1963 and the Vocational Amendments of 1968 listed above also charge vocational education with the responsibility of serving all ability levels of all races, creeds, and colors in all sections of the State.

Even though the Federal Vocational Education Acts have been envisioned as matching acts, State and local dollars invested in vocational education exceed the Federal funds invested on a ratio of about 7 to 1. Since 1918 State and local dollars have more than matched Federal dollars for vocational education and local dollars have increased to several times the Federal dollars each time the Federal funds have been increased. The Federal funds, however, have been extremely important in generating additional funding, for vocational education at the State and local level and in redirecting the program activities.

The numbers listed above indicate graphically the significant growth of vocational education in the State of Ohio. The growth in numbers, however, does not tell the story. The real story rests in the change that has taken place in the services provided by vocational education and the nature of the people served.

Critics of vocational education looking at the changes in vocational education since the passage of the Vocational Education Act of 1963 grudgingly admit that agriculture and home economics enrollments are no longer as high a percent of the total vocational education services as in earlier years. They complain bitterly, however, that agriculture and home economics still represent too high a percentage of the total persons served. In their complaints concerning vocational agriculture they conveniently forget that the only product in this Nation which can be sold competitively on the world market at this point are the agriculture products of this Nation and the fact that our American farmers are the most productive farmers in the world.

Vocational agriculture programs have had and will continue to have a significant impact on the success of our agriculture production in our Nation through our high school, young farmers and adult farmer programing. What is not really available from existing statistics at the national level is the fact that head counts are extremely poor procedures for measuring either impact of vocational education services or units of dollars invested. The following listing indicates a comparison of enrollments by head count in our major vocational areas in 1972. These head counts are reduced to full-time equivalents, which is a truer measurement of instructional and dollar investments in the vocational education programing.

SECONDARY ENROLLMENT AND FULL-TIME EQUIVALENTS IN 1972, INCLUDING USEFUL HOME ECONOMICS

	Enrollment	FTE[1]
Agriculture	19, 470	5, 412
Home Economics	73, 740	[2] 15, 569
Distributive education	13. 646	7, 042
Trade and industrial[3]	36, 062	25, 833
Business and office	24, 230	15, 012

[1] A full-time equivalent equals 30 hours of instruction per week.
[2] Includes job training FTE of 1,200.
[3] Includes health occupations.

This comparison indicates that neither agriculture nor home economics, which also receives criticism, provides the major investments in vocational education today.

PUBLIC LAW 90–567 "PART B—VOCATIONAL EDUCATION PROGRAM"

a. Job Training Enrollments

(1) Enrollments by level of education:

	1963	1968	1972	Goal for 1977
Total	77, 176	156, 221	266, 283	508, 783
Secondary	20, 569	50, 306	112, 208	244, 400
Postsecondary	2, 122	7, 391	20, 186	32, 800
Adult	54, 485	98, 524	133, 889	231, 583

ENROLLMENTS BY JOB TRAINING AREA

	Fiscal year 1973			Fiscal year 1968			Fiscal year 1972			Fiscal year 1977			
	Secondary	Post secondary	Adult	Secondary	Post secondary	Adult	Secondary	Post secondary	Adult	FTE[1]	Secondary	Post secondary	Adult
Agriculture	12, 046		8, 881	14, 528	151	11, 671	19, 684	1, 300	13, 371	5, 419	20, 402	3, 127	25, 352
Business and office	572			14, 684	939	12, 643	24, 485	2, 830	25, 515	15, 010	42, 659	6, 566	53, 009
Distributive	1, 383	48	3, 694	6, 743	466	9, 497	10, 672	4, 841	25, 425	7, 223	33, 385	5, 152	41, 485
Home economics			231	684	173	660	3, 421	904	3, 131	1, 710	11, 128	1, 667	13, 828
Trade and industrial	5, 597		40, 913	15, 516	823	59, 277	35, 914	563	59, 026	25, 849	72, 334	1, 111	87, 580
Health occupations	199	1, 377	776	709	3, 260	3, 617	1, 714	5, 701	1, 402	1, 395	5, 564	5, 202	6, 914
Technical	470	697			1, 579	1, 159		4, 044	2, 768			9, 975	2, 305
Special needs				2, 452			16, 318		3, 251	12, 239	58, 928		1, 110
Total	20, 267	2, 122	54, 485	55, 316	7, 391	98, 524	112, 208	20, 186	133, 889	68, 845	244, 400	32, 800	231, 583

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[1] This figure indicates the full-time equivalent enrollments when equating secondary enrollments to 30 hours of week of instruction.

Example: 10 agriculture students at 1.5 hours per day equal 2.5 FTE. 10 trade and industrial studnts. 4.5 hours per day equal 7.5 FTE.

FTE figures indicate more accurately emphasis in the vocational education programs. Also, investments of State and Federal funds are based upon the FTE enrollments rather than the total head count.

b. General Description—Job Training Program

Part B of the Vocational Education Act lists eight purposes for uses of funds under that section of the act. The enrollments listed above include persons served under the first seven purposes, leaving out only the teachers and administrators provided under purpose eight of that section for ancillary services. The enrollments listed above include only those youth and adults enrolled in job training programs. There is no other delivery system of training in the State which even closely approximates the 266,283 people provided preparation for work in our State during fiscal year 1972.

Obviously vocational education in Ohio has been responsive to the urging of Congress to expand to serve more people. The scope of the vocational programs prepare people for thousands of jobs listed in the Dictionary of Occupational Titles published by the Department of Labor, since each of the programs prepares youth or adults for a family of occupations.

Ohio is mindful of the fact that for most young people high school is their last opportunity for education leading to work and enrollments listed indicate the growth of programs for youth at high school level. It is also obvious that persons employed in work other than professions need continuing education services to enable them to meet the changes in our technological society and to retrain when they become unemployed.

The growth of vocational education required changes in State laws and thoughtful consideration by the State Board of Education to establish policies to make such changes effective. The joint (area) vocational school district movement was finally made legal in 1963 and the first joint vocational schools opened in 1965 at Penta County and Lake County. Twenty-two joint vocational school districts are now in operation, five more under construction, and eight districts have voted the local funds necessary for construction and operation of jointures and have been awarded matching money. Four more joint vocational school districts have voted their local funds and are awaiting matching money.

Ohio had the first State law in the Nation requiring that an adequate program of vocational education should be made available to all of the youth in the State of Ohio. State guidelines for vocational education district planning established by the State board of education following the passage of the law requires no less than 12 different vocational programs be made available to all youth in the State of Ohio.

The standards established by the State board stimulated a massive planning effort within the State which resulted in the reorganization of the then 631 school districts into 58 joint vocational school districts involving 530 individual districts. 16 plans providing for contracts between 57 districts and 31 plans involving single districts for a total of 105 vocational districts. The State board continues to adjust this plan, since it is a flexible plan, in order to enable vocational education planning districts to adjust to the changing needs.

c. Postsecondary Courses

	1963	1968	1972	1977
Junior and community colleges	0	717	1,958	3,182
Technical institutes	0	2,528	6,904	11,218
Area vocational schools	0	672	1,837	2,984
Other postsecondary schools	2,122	3,474	9,487	15,416
Total [1]	2,122	7,391	20,186	32,800
Total Institutional Manpower Development and Training Act enrollments	2,120	5,233	7,530	8,100

[1] These enrollments are included in a above.

Enrollments in postsecondary programs funded under the Vocational Education Act of 1963 have consistently been above the enrollments in the institutional manpower development and training programs without considering the adult vocational programs listed in a subsequent section of this report. The vocational division of the State department of education was responsible for the development of 2-year posthigh school technical education in Ohio with the assistance of the Division of Vocational Education in the U.S. Office of Education when that division at the Federal level still maintained a leadership role. The leadership for technical education in Ohio has been allocated to the State board of regents in later years, but our division of vocational education still maintains an investment in technical education programs of high standards.

The full-time adult postsecondary programs of a vocational nature should grow at an increasing rate to meet the needs of a larger percent out out-of-school youth and adults who need such full-time training to enter or reenter the labor market.

The existing facilities for vocational and technical education are used 14 to 16 hours per day to serve both the in-school and out-of-school youth and adults.

The institutional manpower development and training programs for the most part utilize existing vocational and technical facilities and equipment.

d. Disadvantaged

While growth is important, vocational education in Ohio has changed significantly to provide services to disadvantaged and handicapped youth and adults not previously served by vocational education.

JOB TRAINING SERVICES TO DISADVANTAGED YOUTH AND ADULTS [1]

	1963	1968	1972	Goal for 1977
Total	302	7,177	35,031	71,664
Regular programs	302	7,177	21,361	30,036
Special needs programs			13,670	41,628

[1] These numbers included in a above.

The growth in enrollments in both regular vocational programs and special needs programs stimulated by the set-aside in part B and 102B of Public Law 90–576 for disadvantaged youth and adults are illustrated by the enrollments listed above. Every effort has been made to provide the supplemental services that disadvantaged people need in order to enable them to enroll in the regular vocational programs. A significant number of the youth classed as disadvantaged need assistance with reading skills in order to achieve success in vocational education. Remedial reading laboratories are being established in each of our major centers for vocational education with the assistance of the funds for the "disadvantaged" and such reading laboratories serve both youth and adults.

An occupational work experience program has been established to serve disadvantaged young people who cannot achieve success in school and cannot or will not fit into the skill level vocational programs. This program has achieved a status of a regular vocational program as far as the school leadership and students in our public schools are concerned. The occupational work experience program during 1972 served 10,760 young people who had been unsuccessful in their normal educational programs.

The special needs programs were organized to provide only the services and instruction that cannot be provided through regular vocational programs. Special programs for disruptive youth such as the "Y-Noah Camp Program" in Akron and in special programs for adults such as the vocational training program for adult Spanish-speaking Americans in Cleveland are merely examples of the special needs programs which serve the number of persons listed above.

e. Handicapped

Another set-aside in the Public Law 90–576 directed attention to providing vocational education for the handicapped youth.

JOB TRAINING SERVICES FOR HANDICAPPED YOUTH AND ADULTS[1]

	1963	1968	1972	1977
Total	(2)	(2)	13,035	38,143
Regular programs			7,136	20,843
Special needs programs			5,899	17,300

[1] These numbers included in a above.
[2] Not identified.

Vocational education has had to learn to seek out persons with physical, and/or mental handicaps and learn to adapt vocational education programs to their needs. Again, as with the "disadvantaged" every effort is made first to adjust handicapped youth to the regular vocational programs. Efforts are made with the set-aside handicapped funds to purchase the special equipment and personal services for remedial education necessary for success in vocational programs.

Efforts also have been made to develop programs specifically for the handicapped. A cooperative effort has been developed between special education services, vocational rehabilitation services, and vocational education services to better serve the needs of handicapped youth. Two experimental vocational rehabilitation centers have been established in cooperation with vocational education and special education programing in order to better serve handicapped people. The Jefferson Center in Toledo, Ohio, and the Penta Skill Training Center, established as part of a joint vocational school district, represent massive investments of funds, time and effort to bring the expertise of the three agencies listed above towards improved programs for handicapped youth and adults. It is our belief that every vocational education center needs the services of vocational rehabilitation so as to serve the needs of youth who cannot participate in job training for physical or mental reasons and the assistance of special education to help with the academic education of youth with special needs enrolled in vocational educational programs.

The area of service to the handicapped has undoubtedly been one of the more difficult areas of service for vocational education, but we are learning where to find and how to better serve handicapped people.

f. Adults

ENROLLMENTS

	1963	1968	1972	1977
Preparatory and retraining	231	4,941	18,085	34,571
Upgrading	54,254	93,583	115,804	195,902
Totals [1]	54,485	98,524	133,889	230,473

[1] These numbers included in a above.

The total enrollments for programs funded under the Manpower Development and Training Act are listed in 1c above. It is obvious that the small Federal investments in vocational education programs for postsecondary and adult students provide services to a significantly greater number of persons than any other Federal investment. In many cases the persons have the same economic status and need as those in "Manpower Programs."

This adult program can provide instruction at any hour of the day or night on any topic of instruction of importance to a number of adults or employers. The only limitations are in the facilities and equipment or someone in the area who can teach the skill or knowledge needed. In many cases the facilities and equipment of a local business or industry are used by the public vocational programs for instructional purposes. Teachers generally come from local businesses and industries.

The success of the programs are indicated by enrollment, attendance and continuous growth of the program. The program serves individuals with needs for updating or upgrading and employers who must have a number of new workers trained or existing workers taught new skills and technical knowledge.

g. Financing

(i) The guide attached at appendix A provides information on the reimbursement patterns for all aid to local communities except for the financial assistance for vocational programs under the State foundation program. Units under the State foundation program follow patterns adjusting to different community needs and ability to pay in accordance with foundation payments for all State aid.

The reimbursement patterns indicated in the appendix provide differentiated reimbursement based on the following criteria:

Manpower Needs and Job Opportunities.
Rate of Unemployment.
Percent of Reported Unemployment that is Youth.
Number of Children from Low Income Families per Thousand.
Relative Aibility to Provide Resources.
Relative Costs of Programs, Services and Activities.

These criteria are inserted into the computer for all districts and a priority rating identified for each district. The top third of the group are identified for a A priority, second third, B and bottom third, C. The reimbursements are then differentiated as indicated on appendix A.

(ii) FINANCIAL INFORMATION FOR MAJOR CITIES WITH POPULATIONS OVER 250,000, FISCAL YEAR 1972

	State Funds		Federal funds			
	Amount	Percent of all State	Amount	Percent of all Federal	Number	Number of all enrollments
Akron	$1,569,928	1.3	$1,125,075	5.0	12,459	2.8
Cincinnati	488,432	.4	733,517	3.3	19,457	4.4
Cleveland	4,956,009	4.3	3,122,363	13.8	22,091	4.9
Columbus	1,535,048	1.3	447,913	2.0	8,389	1.9
Dayton	1,823,357	1.6	803,276	3.6	15,311	3.4
Toledo	2,442,260	2.1	945,787	4.2	51,198	11.4
Totals	12,815,034	11	7,177,931	31.9	128,905	28.8

A review of the enrollments and funding in the major cities listed above in comparison with enrollments and funding for the total State indicate that where discretionary allocations are made in terms of Federal funds the percentage of Federal funds allocated to such districts exceeds the percentage of the students enrolled in terms of the total State. Since the fiscal 1972 year changes have been made in the allocation of State funds to increase the percent of funds allocated to these districts from the State level. The foundaion law was changed to permit equal funding for vocational education in major cities with that of the more rural areas.

h. Construction

Growth in both the quantity, quality, and scope of vocational education services to youth and adults could not be possible without additional vocational education facilities.

CONSTRUCTION AND EQUIPPING OF VOCATIONAL FACILITIES

	Construction for vocational education before 1963	1963 through 1968[1]	1969 through 1972[2]	Projected 1973 through 1977[2]
Federal Vocational Act 1968	(3)	$28,237,495	$31,770,864	$14,500,000
Appalachia	(3)	(3)	3,342,407	1,600,000
State	(3)	(3)	74,622,967	169,772,585
Local	(1)	28,237,495	90,827,734	160,845,728
Total		56,474,990	200,563,972	346,718,313

[1] Not recorded.
[2] Includes only projects involving State or Federal funds.
[3] None.

The massive planning for and growth of vocational education programs has required an unprecedented investment in vocational education facilities in order to serve the increased youth and adults enrolled. As indicated above, the first investments in construction were from the Federal funds made available under the Federal Vocational Education Act. As vocational education proved the value of improved and expanded programs and the value of the joint (area) vocational school districts, the State of Ohio invested funds for the first time in the construction of vocational education facilities.

At the present time local districts have voted over 46 million for construction (not included above) along with the necessary operating dollars and just received matching funds at the State level. The program planning in Ohio indicates the amount of additional State and Federal funds needed in order to provide the construction necessary to complete the State plan.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Part D—Exemplary Programs and Projects

Enrollments in career education[1]

1963	None
1968	None
1972	[2] 39, 647
1977	1, 249, 539

[1] Not included in any figures above except 1.
[2] Includes 3,401 disadvantaged and 698 handicapped.

All of the funds made available to Ohio under part D—exemplary programs project section have been used to develop a career continuum in Ohio. Ohio is the first State to introduce a concept in the total career education effort into the public schools. With the encouragement of the State board of education, a Governor's task force, which included the State superintendent, Dr. Martin Essex, and the recommendations of the National Advisory Council chaired by Dr. Essex, Ohio became the first State to initiate in 1970 a career motivation program for grades K–6, an orientation program for grades 7–8 and a career exploration for grades 9–10.

This movement has now gained a significant promotion nationally from Dr. Sidney Marland, Assistant Secretary for Education, U.S. Department of Health, Education, and Welfare. During this current year (fiscal year 1973) a total of 123,485 (6.1 percent of the total K–10 population) are enrolled in career education programs (K–10) in 195 buildings within 20 districts. The State board has approved the goal of providing this program for all youth in 1981. The interest is present in the public schools, but increased funding will be necessary.

b. Residential Vocational Education

Ohio has projected the need for four residential education centers which would place emphasis upon services to disadvantaged and handicapped youth. Ohio had experiences in operating a center for dropouts, identified as Mahoning Valley Vocational Education Center, with assistance from the manpower development and training funds. This center was eminently successful and served as an excellent laboratory for public schools to learn how to better serve the dropouts from our public schools. It was at the Mahoning Valley Vocational Center that we first brought together the services of vocational rehabilitation with vocational education and found that half of the dropouts enrolled were eligible for rehabilitation services. As the Department of Labor took over the Job Corps they refused special funding for this center under the funds made available for the Job Corps or from special funds under the Manpower Development and Training Act. Although no negative reports were ever developed concerning Mahoning Valley and in spite of the fact that it operated more economically than Job Corps programs of its period, this service center and learning center for educators was denied funds from the Department of Labor and closed.

The residential section of the Public Law 90–576 provides the concept for residential vocational education centers in the States and could replace the Job Corps centers under the Department of Labor. This section of the act has never been funded. Funding of this section should seriously be considered as an alternate to the present Job Corps program.

c. Consumer and Homemaking Education

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

		1967-68 (fiscal year 1968)		1971–72 (fiscal year 1972)					
	1962-63, (fiscal year 1963) vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	26,973	49,625		75,233	4,993	1,050	3,421	445	18
Adult	34,104	51,727		62,099	23,725	10,319	4,035	298	107
Total	61,077	101,352		137,332	28,718	11,369	7,456	743	125

As indicated in the earlier sections of this report, the major thrust of vocational education is in the area of job training. The importance of the quality of life, however, suggests that consumer education and home and family living are essential thrusts in the educational development of youth and adults. Also, research indicates the great importance of child stimulation and child care in the period from birth through age three. Some research indicates that divergence in abilities takes place by age 3, with possibilities for changes existing in the first 3 years.

Ohio has given considerable emphasis to the thrust for consumer education. A basic guide and 12 supplements were developed for the introduction of concepts and attitudes regarding wise consumption in all grade levels. The consumer materials were made available to all school districts. Five pilot programs are in operation, testing the concept of a consumer coordinator employed by vocational education planning districts to assist teachers with the inclusion of consumer education in the curriculum. These have shown great success to date. Continuing in-service training programs are offered throughout the State to assist teachers in implementing a consumer education program.

An inner city family life program has been initiated in all of our major cities and two experimental rural areas. These programs are designed to offer instruction within public housing developments in the disadvantaged areas, and in the depressed area of the rural sections in order to assist families with the improvement of child care, nutrition, money management and home management.

An impact program for discouraged, disadvantaged and dropout-prone youth at the seventh and eighth grade level was initiated in 1970 with the major emphasis being in our major cities. Forty-one programs, serving 1,929 girls were offered during fiscal year 1972.

d. Cooperative Vocational Education Programs

Cooperative vocational education (dropout-prone 14- and 15-year-olds only)

1963	(1)
1968	(1)
1972	[2] 3,618
Goal for 1977	27,675

[1] Funding not available.
[2] Disadvantaged, 3,583; handicapped, 35.

Ohio has always maintained a strong cooperative education program since cooperative education programs were initiated before the Smith-Hughes Act of 1918 in both Cincinnati and Dayton, Ohio. During fiscal year 1972 a total of 37,682 youth in vocational education were enrolled in cooperative vocational education programs which figure is included in the numbers listed in earlier sections of this report. All of the students enrolled in cooperative programs were engaged in learning and earning as a part of their vocational education efforts.

Funds made available to Ohio under the part G section were used to develop a new type of cooperative program designed to serve the needs of a special group of youth in our public schools. The program entitled "Occupational Work Adjustment" has been developed since the passage of Public Law 90-576. This program was designed to encourage dropout youth at ages 14 and 15 to remain in school and to prove to them that they can be successful. The program encouraged them to select a job preparation program at age 16.

This program was one of the first of its type in the Nation and the one leading in enrollment in a group of five States given approval by the Department of Labor for an experimental pattern of placement of youth in employment at ages 14 and 15. This has been one of our fast-growing programs. The reports from the schools indicate that it has been successful in turning around dropout-prone youth in regards to their attitudes toward school and preparation for work.

e. Work Study Programs for Vocational Education Students

Work-study enrollments

1963	(1)
1968	(1)
1972	1,500
Goal for 1977	1,885

[1] Funding not available.

The funds made available under the work study section of the vocational act has proven useful in assisting students with financial problems to remain enrolled in vocational education programs. Local schools have provided the funds necessary to match all Federal funds made available under this section of the act. Efforts are made to relate the work accomplished under the work-study program with the vocational education program in which the student is enrolled. Financial assistance for needy students and not the vocational training of the students, however, is the focus of funding under this program effort.

f. Research and Training in Vocational Education

Research funds made available to Ohio under the Vocational Education Act have been used to gain information for the improvement of the vocational education programs including evaluation patterns for such programs. A total of 26 research projects were approved and supervised by our Division of Research, Survey and Exemplary programs in our Division of Vocational Education. Funding of research proposals is on the basis of problems and needs important to the total program in the State of Ohio since such funds are extremely limited.

Ohio has developed a program of "Program Review for Improvement, Development and Expansion" of Vocational Education. Annually 20 percent of the vocational education districts go through a self-review, then a review by a State man from our Division of Vocational Education. This program evaluation technique, developed and supported with part C funds, has proven to be a major force in program improvement in the districts served. Summaries of two research projects conducted in the State of Ohio during 1972 are reported here because of the significant findings relating to vocational education. One was funded by the Division of Vocational Education from part C and one by the State Advisory Council for Vocational Education.

The first study reported is one pointing up the cost effectiveness of vocational education.

Research study:

  Vocational graduates.

  The employer and employee perspective.

Conducted by:

  Market opinion research under contract with State Advisory Council for Vocational Education, 1972.

  Employers rate their Employees.

Employers of the vocational graduates give their employees higher ratings on a number of attributes than do those who employ graduates of other curricula. In particular, vocational graduates are judged better on:

Skills for entry level employment.
Technical knowledge for entry level employment.
Willingness to learn new job skills or take training.
Ability to follow suggestions.
Work habits.
Promotable.
Attitudes toward company or employer.
Concern for productivity.
Concern for safety.

The Attitudes of Approved Vocational Education Graduates as Young Adults

Vocational graduates feel significantly more than other graduates that what they learned in high school is helpful in what they are doing now. They are similar to other graduates in finding that life now has met their high school expectations. Three-fourths find their expectations have been matched or bettered, while one-fourth say their aspirations have not been met.

The really big difference between vocational graduates and those from other curricula, however, is in their more positive attitudes toward their jobs.

Vocational graduates feel more that there is a good future on their jobs.

They feel more that they like the people they work with.

They feel more that they will get higher pay through promotions.

They disagree more that the only thing they want from a job is a paycheck.

More try hard to do high quality work.

They show less desire to change occupations.

They feel better trained for their present jobs.

They feel more that they are doing the kind of work for which their education prepared them.

Fewer feel their job is temporary.

More feel their employer cares about safe working conditions.

Fewer feel it is OK to be absent when they feel like it.

"Vocational students made up the smallest group in school, but had the largest percentage employed a year after high school."

"Vocational students showed some marked differences in job attitudes from their counterparts in college preparatory and general courses. College preparatory and general curriculum students tended to believe that they would like to remain in their occupation. They were much firmer in expressing the attitude that it is not "okay for me to be absent when I feel like it."

"Over the past decade in Ohio, perhaps the most radical changes in curriculum have come in the area of vocational education. The study indicated some very positive outcomes as a result of these changes. For example, 19-year-olds who had participated in vocational education programs appeared to be significantly better prepared for the world of work, both attitudinally and in terms of basic skills, than were their 25-year-old counterparts."

"For both age groups, feelings of having been successful in high school were higher among former college preparatory and vocational students than among former general students."

"There was some evidence that a goal-directed educational program (either college preparatory or vocational) produced students with more feelings of success in their high school work."

"In light of the need to establish common and acceptable goals and objectives for our educational system, to find new

> methods of financing that system, and to develop entirely new basis and rationales for school governance, such participation by citizens from every stratum of life is needed in the educational process."
>
> "Recent improvements in vocational education and special services to children have proven that the educational system can meet current social needs in a timely and effective manner."

The second one is a research study on cost-benefits of vocational education.

Research study:

The role of vocational education in improving skills and earning capacity in the State of Ohio—A cost benefit study.

Conducted by:

Ishmael A. Ghazalah, Ph.D., Department of Economics, College of Business Administration, Ohio University.

Vocational education, as all forms of education, has a multidimensional welfare effect. In the absence of a unique objective measure for this effect, earnings represent a proximate measure. Two measures of the rate of return on investment in vocational education were used. The first measure evaluated vocational education as an investment in dropout prevention; that is, rates of return (rate of return I) were calculated on investment in 11th and 12th grade level vocational education on the assumption that otherwise the trainee would have dropped out of high school upon completion of the 10th grade. The second measure, rate of return II, evaluated high school vocational education as an investment in lieu of academic high school education.

The results of applying the two measures to 1970–71 data on 14 programs in 18 Ohio high schools provide strong evidence that vocational education in Ohio is a socially worthwhile investment. In all but one of the vocational programs studied, median rates of return exceed the rate of interest reflecting the opportunity cost of the funds used. The program that fails to pass the test as a worthwhile investment provides an illustration of the multidimensional aspects of vocational education. The costs of investment in the child care program exceed the benefits measured solely in terms of increased potential earnings. There are, however, indirect benefits associated with the acquisition of child-care training—benefits that accrue to the family unit and to society as a whole through the role of the program graduate as a mother and a housemaker. The same qualification applies to the rates of return for females on the other home economics program studied--food preparation.

These two studies are included since the study by market opinion research completed on the carefully planned sampling basis by a reputable research unit suggests that vocational education is a cost-effective program. The second study by Dr. Ghazalah relating to the costs of vocational education and the dollar returns to the individual and society suggests all but one of the vocational programs studied could point to a cost-benefit ratio indicating significant cost benefits to both the individual and society.

A placement report to the U.S. Office of Education generated by our research division indicated that graduates from vocational education programs have a low unemployment rate, the unemployment rate for vocational graduates being one-third or less than the rate for graduates from the general program. The high percentage of youth graduating from vocational education who enter work related to their areas of training also indicate that vocational education has a positive effect on the quality of placement as well.

STATE ADVISORY COUNCIL

The State advisory council has been a valuable aid in the further development and expansion of vocational education. Ohio had a well-organized advisory council at the time the Vocational Education Amendments of 1968 made such a council mandatory. The adjustment to the new council, therefore, was made easily and quickly.

The several most important contributions of the State advisory council to the program of vocational and technical education in Ohio and the response of our division of vocational education to such contributions are as follows:

a. A study of the use of advisory committees by local programs of vocational education. This study indicated a significant need to expand the number and improve the effectiveness of local advisory committees.

Division of Vocational Education response

i. The results of the study were distributed to all programs of vocational education in the State.

ii. A review of local advisory committees was included in the formal program review for improvement, development and expansion of vocational education. Annually 20 percent of the vocational education planning districts in the State are included in this review.

iii. An update study is in process by our research and survey service to determine if the use of advisory committees has improved.

b. Series of statewide meetings to focus on the progress and problems of the vocational education programs in the State.

Division of Vocational Education response

i. Publicity from the meetings aided in a better public understanding of vocational education.

ii. The meetings provided support for the further expansion of vocational education within the State.

iii. Representatives from the division of vocational education participated in every area meeting.

c. Study of vocational graduates.—The employer and employee perspective—This study provided cost-effectiveness information on the graduates of vocational programs in comparison with graduates from nonvocational programs.

Division of Vocational Education response

i. Information was publicized to members of House and Senate Members of both education and finance committee in the State.

ii. Information will be distributed broadly throughout Ohio and the Nation.

iii. The division will initate action to obtain the social security numbers of all graduating seniors so that improved follow-up procedures can be established.

d. Advice and counsel from the State advisory council to the division of vocational education.

Response of Division to suggestions

i. Legislation was proposed and passed to provide improved financial aid for vocational programs in major cities.

ii. A pilot project to use non-professional guidance persons with a background from business and industry has been established.

iii. Greater efforts have been made to expand innercity family life programs.

This listing is not complete, but indicates only a few of the advisory council activities and the division of vocational education response.

SUMMARY AND CONCLUSION

State administration, legislature, State board of education and the administration in the State department of education have encouraged the further development and expansion of vocational education. Within our State it is recognized that only 14 out of every 100 of our youth will obtain a college diploma and that by 1975 only 5 percent of our jobs will be of the unskilled category. Categorical aid through the Federal vocational education funds have served to create programs to redirect educational efforts in the Nation. The State and local communities have not placed all the burdens for program development upon Federal funds. The categorical aid to vocational education has truly been creative federalism and the Federal, State, local relationships in vocational education represent a system for the delivery of all job training efforts encouraged by Federal funding, including those areas relating presently to the both "manpower" training efforts.

Funds appropriated for vocational education by the national Congress, however, is not enough to permit us to grow towards the goals established for 1977 as indicated in this report. A very simple fact remains that program growth is dependent upon investments of dollars. State and local communities have proven that they will more than match Federal investments, but Federal funds for vocational education will need to be increased if we are to achieve the goals envisioned by Congress and accepted by the State and local communities.

RECOMMENDATIONS

1. Maintain categorical aid for vocational education under existing federal vocational education acts. (Public Law 90–576)
2. Maintain funding in the States through State educational agencies.
3. Provide immediate full funding under existing vocational education acts (Public Law 90–576) and initiate planning to determine the Federal share of investments necessary to use vocational education for social and economic change as envisioned in the Vocational Education Act of 1963 as amended in 1968.
4. Establish an Office of Vocational, Technical and Manpower Development directly under the President to give leadership to and possibly administer the present vocational and manpower education program in the Nation. An expanded effort could be achieved through this organization and the potential for social and economic change possible through our vocational educational system enhanced.
5. Provide funding for the residential section of the vocational education acts Public Law 90–576 as an alternative for the present

job corps program, funded presently under the Department of Labor, in those States that will accept the responsibility.

6. Maintain and expand the staffing for vocational education in the Bureau of Adult, Vocational and Technical Education in the U.S. Office of Education. Leadership must be maintained at the Federal level in vocational education. Further regionalization of the Bureau of Adult, Vocational and Technical Education will be a significant error, since it will result in a 10-legged monster with no head.

7. Strengthen the educational responsibilities of the U.S. Office of Education Division of Adult, Vocational and Technical Education and the divisions of vocational education in State departments of education in relationship to the existing "manpower training acts" or any revision of the manpower acts. Such acts are basically educational efforts to retrain and upgrade persons in or out of the work force. There is a role for the Department of Labor in outreach, subsistence payments, placement and follow-up, but they do not have the expertise in the job training area. A concept of "prime sponsorship" through the office of mayors or other political units has no history of success and certainly many examples of failure in OEO history.

8. Legislation is needed to force the Department of Health, Education, and Welfare to again make vocational programs eligible for excess property .Such programs were cut off from such property by order of the Secretary of Health, Education, and Welfare and not by Congress or the General Services Administration.

9. The education section of the Department of Health, Education, and Welfare budget should be separated from the total budget package in order to assure educational funding at the Federal level prior to the beginning of a school year.

1971–72 Reimbursement Schedule for Trade and Industrial, Business and Office, Distributive, Agriculture and Home Economics Programs

(Reimbursement may be made from available vocational funds on the basis of the following reimbursement schedule. The letter designations indicate the reimbursement rate for schools that come under that priority rating.)

A. LOCAL DIRECTORS OF VOCATIONAL EDUCATION

Reimbursement may be made when:

(*a*) 12 or more full-time approved vocational teachers are employed (1,080 class hours of instruction in approved adult vocational classes will be counted as the equivalent of a full-time instructor);

(*b*) Programs to be directed include two or more vocational service areas; and

(*c*) The director is employed for a 12-month year.

Any Joint Vocational School District may be approved for a local director.

A—$7,000; B—$6,750; C—$6,500.

B. SUPERINTENDENTS OF JOINT VOCATIONAL SCHOOL DISTRICTS

Reimbursement may be made for a 12-month year for superintendents of Joint Vocational School Districts who are certified as a superintendent by the Division of Certification of the State Department of Education.

A—$8,000; B—$7,750; C—$7,500.

C. LOCAL SUPERVISORS OF VOCATIONAL PROGRAMS

Reimbursement may be made for a 12-month year, provided there are 8 approved full-time (or equivalent) teachers under supervision, or for developmental purposes.

A—$6,000; B—$5,750; C—$5,500.

D. LOCAL COORDINATORS

Reimbursement may be made for a 12-month year for coordinators as approved by the State Office.

A—$5,000; B—$4,750; C—$4,500.

E. LOCAL VOCATIONAL GUIDANCE COUNSELORS OF VOCATIONAL AND TECHNICAL PROGRAMS

Reimbursement may be made for a 12-month year for vocational guidance counselors in schools offering 5 or more separate vocational programs. Reimbursement may be made on the basis of the number of students enrolled in approved vocational courses as follows: 100-300 students, 1 vocational guidance counselor; 301-700 students, 2; 701-1000 students, 3; each 300 students over 1000, 1 additional. Joint Vocational School Districts become eligible for 1 vocational guidance counselor on the formation of the new district; they are then eligible for a second counselor nine months prior to the scheduled opening of the Joint Vocational School, after which the enrollment requirements above apply. (A Placement Supervisor may be substituted for a vocational guidance counselor if he meets the supervisory requirements of 1 of the services in vocational education.)

A—$5,000; B—$4,750; C—$4,500.

F. EQUIPMENT FOR APPROVED PROGRAMS NOT OTHERWISE DESIGNATED

Reimbursement may be made from available vocational funds for a percentage of the true cost of items having a unit value of at least $25.

A—60%; B—55%; C—50%.

G. TRAVEL ALLOWANCE SUPPORT

Local directors, vocational guidance counselors, supervisors, coordinators and teachers of vocational programs.

Reimbursement may be made for a percentage of the aproved local travel.

For reimbursement purposes travel shall not be reported at a rate greater than that established for state employees, namely 10¢ per mile.

75% up to a maximum reimbursement of $300 unless an additional amount is justified and approved by the State Office.

Note. If a person is employed less than 12 months, the reimbursement will be prorated accordingly.

II. ADULT AND POSTSECONDARY PROGRAMS

Unit Reimbursement Rates—Full Time

Schools Under Public Education:

Reimbursement rate per 36-week program if the entire curriculum is approvable as vocational or technical.

A—$8,500; B—$8,250; C—$8,000.

Reimbursement rate per 36-week program if the 15% electives (or any part thereof) are in areas of non-vocational or technical subjects.

A—$7,500; B—$7,250; C—$7,000.

Schools receiving assistance from the Board of Regents.

Reimbursement at 50% of the above rates.

Hourly Reimbursement Rates—Part-Time

Pre-employment, and evening and part-time supplementary instruction.

Reimbursement rate per classroom hour of instruction.

A—$3.50; B—$3.25; C—$3.00.

Apprenticeship.—Additional reimbursement for school systems accommodating apprentices from outside the school district.

Up to 50¢ per hour guaranteed, based upon expenditures of local board funds.

Postsecondary (Technical) Director

Schools receiving assistance from the Board of Regents.

Reimbursement may be made for one per center.

A—$6,000; B—$5,750; C—$5,500.

Supervisor(s).—Schools receiving assistance from the Board of Regents.

One supervisor may be reimbursed for each eight units, or for developmental purposes.

A—$4,500; B—$4,250; C—$4,000.

OKLAHOMA

State Director—Francis T. Tuttle

INTRODUCTION

The state of Oklahoma has had a 65-percent increase in its vocational enrollment over the past 10 years. In 1963, the majority of enrollment in the State was in agriculture and home economics. Since that time, all occupational areas have expanded. A breakdown of the enrollments for the years 1963, 1968, and 1972 and the projected 1977 enrollment is contained in table 1.

PUBLIC LAW 90-576 "PART B"—STATE VOCATIONAL EDUCATION PROGRAMS

a. Job Training Enrollments

Table 2-A presents a breakdown of the enrollments for fiscal years 1963, 1968, 1972, and 1977 for high school, post high school, and adult.

b. General Description

All occupational areas in the State of Oklahoma have been expanded since 1963. The area receiving the greatest emphasis has been the health field. In this area all programs have been expanded but emphasis has been placed on associate degree nursing, licensed practical nursing, medical technician programs and other programs in the health field that require needed manpower. The second area that has had the greatest enrollment increase is trade and industrial education. The construction trades cluster containing carpentry, masonry, electrification, and air-conditioning and refrigeration has had the greatest increase. Also, the mechanical cluster, heavy equipment and welding have been areas which have received emphasis in the State of Oklahoma. In the technical education field, the electromechanical area is an area where programs have been expanded. Emphasis has also been placed in the office occupational and all programs in the office occupations area have been expanded. The State department of vocational and technical education has a special schools division which trains persons for new and emerging industries coming into the State of Oklahoma. This special schools section is responsible for taking care of any immediate manpower needs of new industry or any emerging technologies. This program trains persons for immediate employment and the traditional training programs that we have in this State are then expanded to take care of the replacement needs for these industries coming to Oklahoma. This has been a contributing factor to the industrial development of the State.

c. Post Secondary Courses

Table 2–C contains a breakdown of the post secondary enrollment by junior and community college, technical institutes, area vocational schools, and other post secondary institutions.

d. Disadvantaged Students

In 1963, there were no organized programs for the disadvantaged population in the State of Oklahoma. Since the 1963 Vocational Education Act and the 1968 Vocational Education Amendments, emphasis has been placed on designing programs to take care of persons who were not able to succeed in regular programs of vocational and technical education. Programs have been initiated to satisfy the requirements for persons needing specially designed education that are economically, educationally, or culturally disadvantaged. Table 2–E is a breakdown of the disadvantaged enrollments for the years requested.

e. Handicapped Students

Specially designed programs for the handicapped population in the State have also received emphasis since the 1968 Vocational Education Amendments. Previous to that time there was no regularly designed vocational program to take care of this population. Progress has been made in programs for the handicapped students and increased emphasis will be given in the coming years in order to try to meet the needs of this particular section of our population.

f. Adults

Table 2–F is a breakdown of the adult enrollments for the State. Approximately 48 percent of the enrollment in the State of Oklahoma in adult education is persons in preparatory training preparing for a new job. A study conducted by the State department of vocational and technical education with business, industry, and government services in the State indicated that 148,340 persons needed some kind of upgrade training by the state department annually. This leaves 136,526 individuals annually needing training that is not being met by vocational and technical education training programs in the State. In 1963, very little training was conducted in the manpower program. In 1968 approximately 18 percent of the adults trained were in the MDTA training program. In 1972, approximately 16 percent of the training of adult preparatory courses was conducted by MDTA. It is projected that in 1977 that approximately 15 percent of the training for adult preparatory will be conducted by the MDTA program area. A breakdown of the enrollment for both the adult preparatory, supplementary, and manpower training is contained in table 2–F.

g. Financing

(i) Allocation of Federal funds to local education agencies gives consideration to the following maintenance of effort requirements. Federal funds made available under part B of the act will not supplant State or local funds, but will be so used as to supplement to the extent that it will increase the amount of State and local funds that would in the absence of such Federal funds be made available for the purposes set forth in section 122–(a) of the act, so that all persons in all communities of the State will, as soon as possible have ready access to vocational education suited to their needs, interests, and abilities to benefit therefrom. No payments of Federal funds of the act will be made in any fiscal year to any local education agency unless the State board finds that the combined physical effort of that agency of the State with respect to the provisions of vocational education of that agency for the proceeding fiscal year was no less than such combined physical effort for that purpose for the second proceeding fiscal year. Any such reduction in combined physical effort for any fiscal year by more than 5 percent will disqualify a local educational agency unless the local educational agency is able to demonstrate to the satisfaction of the State board that such a reduction was occasioned by unusual circumstances that could not have been fully anticipated or reasonably compensated for by the local education agency and that the physical effort of the local education agency does not otherwise indicate a diminished physical effort. Consideration will be given to the tax effort requirements specified in the allocation of Federal funds to a local education agency and no local education agency which is making a reasonable tax effort will be denied funds for establishing new vocational education programs solely because it is unable to pay the non-Federal share of the cost of such programs.

The tax effort of a local education agency shall be represented by the ratio between the total annual local tax revenues available to the agency for educational purposes and the total wealth of the local area or communities served by the agencies. In computing local tax effort, the State board may measure local revenues and local wealth by whatever means it considers fair and equitable to all local educational agencies in the State. In local education agencies, tax efforts shall be considered reasonable whenever they are equal to or greater than the average local tax effort in the State.

The States' use of variable matching of local funds for Federal funds is as follows: 50 percent of the State and local expenditures for State vocational education programs under part B of the act except that the Federal shares shall be 100 percent for programs for the disadvantaged in areas of high concentration of youth unemployment and school dropouts under part B of the act and finance of funds under section 102 (b) of the act.

(ii) The State department of vocational and technical education funds programs in 435 independent districts in the State of Oklahoma. There does not exist enough State and Federal funds to fund programs of vocational education on an equitable level with the population. Another factor affecting the funds going to a city is the philosophy of the administration in that school system. The decision for establishing local programs of vocational education is left to the local administration with direction and leadership being provided by the State department of vocational and technical education.

See table 2–G(ii) for a breakdown of expenditures and populations.

h. Construction and Equipment

The State of Oklahoma has constructed and equipped 19 area vocational and technical schools since 1963. It is projected that continuous effort will be made in completing a statewide system of area vocational and technical training centers for the State of Oklahoma. Table 2-H gives a breakdown of the amount of funds used for construction and equipment since 1963 and the projected amount needed for the period 1973 through 1977.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

Several exemplary programs have been conducted by the State department of vocational and technical education. Most of these programs have been in the area of innovations in vocational educational education or in the career exploration phases of vocational and technical education. A 3-year program was conducted in the Tulsa public school system to give the fith and sixth grades an orientation to the world of work and to occupational education. A project is currently being conducted in the Oklahoma City public school system to work with the middle schools in order to create an awareness of vocational education in the students and the administration and to explore occupations that will enable the student to make a wise choice in selecting a career and to train for that career while enrolled in the school system. Table 3-A contains a breakdown of the exemplary programs for 1968, 1972, and 1977.

b. Residential Vocational Education

The long-range plan for occupational education in the State of Oklahoma indicates that there is a need for one additional residential vocational education school. The State currently has one residential vocational education school that serves approximately 3,000 students. An additional school would give the State of Oklahoma the mechanism necessary for serving the population of the State.

c. Consumer and Homemaking

Consumer and homemaking education has continued to fulfill a need for the residents of the State. Historically in the State, 42 counties have been designated as economically depressed. A majority of the consumer and homemaking programs are in the economically depressed area. Currently the total State of Oklahoma has been designated as a depressed area. Not only has the consumer and homemaking education effort been towards directing the program for family life, but it has also been designed to meet the dual role of occupational readiness for employment in the home economics employment field. However, emphasis has been given to the gainful home economics programs under part B. Programs have been implemented in this area to fulfill the need in manpower areas that employ graduates of home economics programs. This manpower training area continues to show an increase in the amount of persons needed in the home economics employment area. Table 3-C gives a breakdown of both the consumer and homemaking programs and the gainful home economics programs for the State of Oklahoma.

d. Cooperative Vocational Education

CVE Part G has been a small part of the total cooperative education effort in the State. Continued emphasis and acceptance of cooperative vocational education is being made in the State. The cooperative training approach proves to be one of the more successful training approaches for students in order that they may enter employment. It is felt that this is one of the best training mechanisms available to occupational education. Table 3-B contains a breakdown of the cooperative vocational education enrollment in the State.

e. Work-Study Programs

Many students are receiving assistance in the work-study effort who otherwise would not be able to enroll in occupational education and receive the training necessary to gain employment. Table 3-E gives the enrollment in the work-study programs for the periods 1968, 1972, and 1977.

f. Research and Training

The funds received under part C of the act for research and development in the State have perhaps proven to be one of the most important contributions that has been made to the State department of vocational and technical education in Oklahoma.

The use of part C funds from the act has allowed the State department of vocational and technical education to establish a management information system which includes the occupational training information system (OTIS) as a subpart and the individual student accounting system as another subpart. The use of these two subparts has allowed the State department of vocational and technical education to be effective in planning their occupational programs in order to meet the manpower requirements for the State and the individual needs of students. Another effort that has been accomplished by use of part C funds is the evaluation of vocational and technical education programs in the State. Every program of vocational and technical education will receive a comprehensive evaluation every 5 years. This evaluation effort should help to identify those processes that programs receiving a high evaluation are using to conduct quality occupational training. These processes identified can then be used to make recommendations to other vocational and technical education programs in order to improve the quality of training being conducted by the educational agencies. Many other small research projects have been conducted which have proven to be very beneficial in the improvement of vocational and technical education in the State.

ADVISORY COUNCILS

The State advisory council has been very complimentary to the vocational and technical education effort in the State of Oklahoma. The major recommendations made by the State advisory council have been in the areas of proficiency rating, vocational graduate followup study, teacher supply and demand, teacher training in adult education, and training of guidance and counseling personnel. The State department of vocational and technical education has accepted the recommendations made by the State advisory council and used their recommendations to improve occupational education in the State. Emphasis is currently being given to performance objectives in all occupational training areas. The State department is in the process of following up their graduates over a 5-year period in order to determine the quality of training received by individuals while enrolled in the occupational training programs and to learn from the employer areas of weaknesses in the training programs funded by the State department of vocational and technical education. The State department has supplied to teacher training institutions the programs showing the greatest need for trained manpower in the future. Efforts have been made to alert the teacher training institutions to the potential for trained teachers in order to implement the manpower training programs needed by the State of Oklahoma. A plan is being developed for adult education which would provide for an organized program of adult education in the State. Many attempts have been made by the State department of vocational and technical education to increase the effectiveness of guidance and counseling personnel. Perhaps the two areas that have been most effective in reaching persons in need of occupational training are the VIEW project (vital information for education and work), and mobile guidance career development labs in a seven-county area in the State of Oklahoma. These programs have been effective in reaching students in order to make them more aware of the occupational opportunities that exist for them in the State. The State advisory council is used annually in making the annual and long-range plans for vocational and technical education in the State.

SUMMARY AND RECOMMENDATIONS

Federal funds provided through the 1963 Vocational Education Act and the 1968 Vocational Education Amendments have contributed greatly to the expansion of vocational and technical education in the State of Oklahoma. Without this source of funds, the effort would have been greatly stifled. As the work force currently exists, we are only reaching a minor proportion of the total population that should be receiving occupational training in Oklahoma, as well as in the Nation. The vocational and technical education effort has contributed greatly to the industrial effort of the State of Oklahoma, which has greatly benefited the economic situation of the State. Not only has it provided training for the industrial development of the State but it has reached persons who were in need of occupational training and has assisted them in gaining employment and becoming taxpaying citizens. Perhaps one of the greatest detriments to the vocational and technical education effort is the uncertainty of funds available to the States to conduct programs of vocational and technical education. This uncertainty greatly hinders the planning efforts of the State. In reviewing the Better Schools Act of 1973, nothing can be found which would indicate that it would improve vocational and technical education. There is much to be lost for vocational and technical education with the special education revenue sharing. The act has too many uncertainties to be able to see how it might benefit the vocational and technical education effort. It is recommended that funds should be provided in order to meet the occupational training needs of the States. These funds should come to the State agencies who have the responsibility for the administration of occupational education within the States.

TABLE 1.—TOTAL ENROLLMENT FOR FISCAL YEARS 1963, 1968, 1972, AND 1977

1963	69,668	1972	115,049
1968	87,651	1977	136,801

TABLE 2-A.—JOB TRAINING ENROLLMENTS (PART B FEDERAL FUND ENROLLMENTS)

Job training area	Secondary				Postsecondary				Adult			
	1963	1968	1972	1977	1963	1968	1972	1977	1963	1968	1972	1977
Agriculture	19,126	17,610	18,390	18,069			61	191	8,420	5,626	5,317	6,942
Distributive education	968	2,029	2,896	3,689			291	820	481	81	2,734	3,520
Health		127	913	1,165	495	727	1,888	2,360	233	634	1,827	2,347
Home economics 09.02		591	1,113	2,322			70	139		1,414	1,178	1,561
Business and office		2,178	3,596	4,412			2,565	3,206		1,975	4,926	6,453
Technical education		647	333			2,940	1,973	3,970		411	2,637	3,422
Trade and industry	4,520	8,946	12,929	14,736					4,969	7,958	18,969	24,640
Total	24,614	32,128	40,170	44,393	495	3,667	6,848	10,686	14,203	18,099	37,588	48,888

TABLE 2-C.—POSTSECONDARY ENROLLMENT

Job training area	Junior Colleges				Technical institutes				AVTS				Other postsecondary			
	1963	1968	1972	1977	1963	1968	1972	1977	1963	1968	1972	1977	1963	1968	1972	1974
Agriculture			56	115							5	76				
Distributive education			275	400							16	420				
Health	0		30	1,416	495				0		259	944	0			
Home economics 09.02			50	116							20	23				
Business an. office			1,826	2,405			480				255	801				
Technical education			1,059	2,184			718	1,469			178	278			18	39
Trade and industry																
Total	0		3,296	6,636	495		1,198	1,469	0		733	2,542	0		18	39

TABLE 2-D.—DISADVANTAGED STUDENTS

Program area	Secondary				Postsecondary				Adult			
	1963	1968	1972	1977	1963	1968	1972	1977	1963	1968	1972	1977
Agriculture	(1)	2,525	3,346	5,059	(1)		3	54	(1)	41	644	840
Distributive education	(1)	291	491	1,033	(1)		22	230	(1)	1	1,551	1,997
Health	(1)	18	218	326	(1)	9	417	507	(1)	5	1,306	1,678
Home economics	(1)	85	335	650	(1)		6	39	(1)	87	486	645
Business and office	(1)	312	545	1,235	(1)		147	223	(1)	14	952	1,247
Technical education	(1)	93	24		(1)	35	274	1,112	(1)	3	13	17
Trade and industry	(1)	1,283	2,448	4,126	(1)				(1)	58	5,351	6,949
Total		4,607	7,407	12,429		44	869	2,165		209	9,133	13,373

[1] No available data.

TABLE 2-E.—HANDICAPPED STUDENTS

Program area	Secondary				Postsecondary				Adult			
	1963	1968	1972	1977	1963	1968	1972	1977	1963	1968	1972	1977
Agriculture	(1)	2,589	1,972	1,987	(1)		0	15	(1)	16	0	555
Distributive education	(1)	298	220	295	(1)		28	79	(1)	0	41	281
Health	(1)	19	73	932	(1)	8	395	493	(1)	2	10	188
Home economics 09.02	(1)	10	328	673	(1)		2	11	(1)	4	8	125
Business and office	(1)	320	309	353	(1)		713	891	(1)	6	132	516
Technical education	(1)	95	16		(1)	34	167	318	(1)	1	11	274
Trade and industr[illegible]	(1)	1,315	996	1,135	(1)				(1)	23	252	320
Total		4,646	3,914	5,375		42	1,305	1,807		52	454	2,259

No available data.

TABLE 2-F.—ADULT PROGRAMS AND ENROLLMENT

Program area	Preparatory				Supplemental				Total adult (part B funds)				Total adult manpower enrollments			
	1963	1968	1972	1977	1963	1968	1972	1977	1963	1968	1972	1977	1963	1968	1972	1977
Agriculture	1, 684	2, 250	124	139	6, 736	3, 376	5, 193	6, 803	8, 420	5, 626	5, 317	6, 942	(1)	176	79	135
Distributive education	385	73	1, 753	2, 253	96	8	981	1, 267	481	81	2, 734	3, 520	(1)	221	233	350
Health	266	571	1, 665	2, 136	67	63	162	211	333	634	1, 827	2, 347	111	246	350	475
Home economics		354	293	391		1, 060	885	1, 173		1, 414	1, 178	1, 564	(1)	(1)	(1)	(1)
Business and office		1, 580	2, 937	3, 872		395	1, 989	2, 581		1, 975	4, 926	6, 453	145	363	653	900
Technical education		164	1, 352	1, 745		247	1, 285	1, 677		411	2, 637	3, 422	160	(1)	155	170
Trade and industry	1, 988	3, 183	10, 599	13, 798	2, 981	4, 755	8, 370	10, 842	4, 969	7, 958	18, 969	24, 640	445	262	1, 281	1, 600
Total	4, 323	8, 175	18, 723	24, 334	9, 880	9, 924	18, 865	24, 554	14, 203	18, 099	37, 588	48, 888	861	1, 268	2, 800	3, 630

[1] None.

TABLE 2-G (II).—PERCENTAGE OF STATE AND FEDERAL FUNDS AND POPULATION

Place	Federal	Percent	Funds, State	Percent	Percent of total	Population	Percent
Oklahoma	8,671,135		5,129,879			2,559,229	
Oklahoma City	439,594	5.1	281,925	5.5	5.2	366,481	14.31
Tulsa	785,588	9.1	553,870	10.8	9.7	331,638	12.95
Adair County	139,112	1.6	3,900	.07	1.0	15,141	.59
McCurtain County	169,434	1.9	9,375	.10	1.2	28,642	1.11

TABLE 2-H—CONSTRUCTION AND EQUIPMENT

Year	Local	State	Federal	Total
1963		9,942.07		9,942.07
1964		9,925.14		9,925.14
1965	1,572,974.61	7,334.98	1,606,570.72	3,186,880.31
1966	1,832,080.25	247,957.87	1,601,856.88	3,681,895.00
1967	2,059,279.00	199,485.00	1,759,302.00	4,018,066.00
1968	1,174,258.00	111,010.00	1,445,194.00	2,730,462.00
Total	6,638,591.86	585,655.06	4,967,010.60	12,191,157.52
1969	1,232,642.00	324,912.00	907,729.00	2,465,283.00
1970	1,057,422.00	1,150,400.00	253,369.00	2,461,191.00
1971	3,134,642.00	1,825,000.00	1,893,881.00	6,853,526.00
1972	682,002.00	525,000.00	1,358,721.00	2,565,723.00
Total	6,106,708.00	3,825,312.00	4,413,703.00	14,345,723.00
1973	738,500.00	738,500.00	150,000.00	1,627,000.00
1974	3,060,000.00	2,120,000.00	250,000.00	5,430,000.00
1975	2,831,653.00	1,820,349.00	2,090,030.00	6,742,032.00
1976	906,499.00	582,750.00	669,083.00	2,158,332.00
1977	1,790,599.00	1,151,100.90	1,321,633.00	4,263,332.00
Total	9,327,251.00	6,412,699.00	4,480,746.00	20,220,696.00

TABLE 3-A.—EXEMPLARY PROGRAMS AND PROJECTS

	1968	1972	1977
Number of programs	9	15	18
Number of persons	135	2,531	2,886

TABLE 3-B.—RESIDENTIAL VOCATIONAL EDUCATION

	1963	1968	1972	1977
Number of schools	1	1	1	2
Enrollment	1,100	1,600	2,400	4,000

TABLE 3-C.—CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS

	1963	1968		1972						1977					
				Part F—Consumer home economics			Part B—Occupational home economics			Part F—Consumer home economics			Part B—Occupational home economics		
	Home economics	Useful	Gainful	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	24,473	25,124	591	23,759	5,899	2,258	1,113	335	328	25,659	5,788	1,654	2,322	650	186
Adult	5,883	8,633	1,414	6,644	525	288	1,178	486	8	7,175	1,632	466	1,564	438	125
Total	30,356	33,757	2,005	30,403	6,424	2,546	2,291	821	336	32,834	7,420	2,120	3,886	1,088	311

TABLE 3-D.—COOPERATIVE VOCATIONAL EDUCATION, CVE PART G

Program area	1963	1968	1972	1977
Agriculture		1,151	635	840
Distributive Education		742	406	549
Health		148	71	110
09.01 home economics				
09.02 home economics		483	272	357
Business and Office		334	183	247
Technical education		37	7	27
Trade and industry		817	449	604
Total		3,712	2,023	2,744

TABLE 3-E.—WORK-STUDY PROGRAMS, PART H

	1963	1968	1972	1977
Work-study enrollment		434	476	780

OREGON

State Director—Leonard Kunzman

INTRODUCTION

In 1969 the State board of education established the development of career education as its No. 1 instructional priority for the public education system in Oregon.

This career education program is based upon a model which provides for comprehensive program development at the elementary, midschool, secondary, and post-high school levels. The curriculum design is based upon a strong emphasis on guidance and counseling at every level.

Specifically, programs are being developed to accomplish the following:

Occupational Specialization, Posthigh and Adult

Includes programs in 13 community colleges, apprenticeship, private vo-tech schools, and 4-year colleges and universities. Where students will be involved in developing specific occupational knowledge and preparation in a specialized job area; have opportunity to form meaningful employer-employee type relationships; and be provided necessary retraining or upgrading skills.

Occupational Preparation, Grades 11–12

Centers on career cluster programs at 11–12 grades where students will acquire occupational skills and knowledge for entry-level employment and/or advanced occupational training; tie a majority of high school experiences into generalized career goals; develop acceptable job attitudes; and be involved in cooperative work experience and have opportunity to be a member of a vocational youth organization.

Career Exploration, Grades 7–10

Programs in the midschool years usually grades 6–7 through 10, where students will explore key occupational areas and assess own interests and abilities; become familiar with occupational classifications and clusters; develop awareness of relevant factors to be considered in decisionmaking; gain experience in meaningful decisionmaking; and develop tentative occupational plans and arrive at a tentative career choice.

Career Awareness, Grades K–6

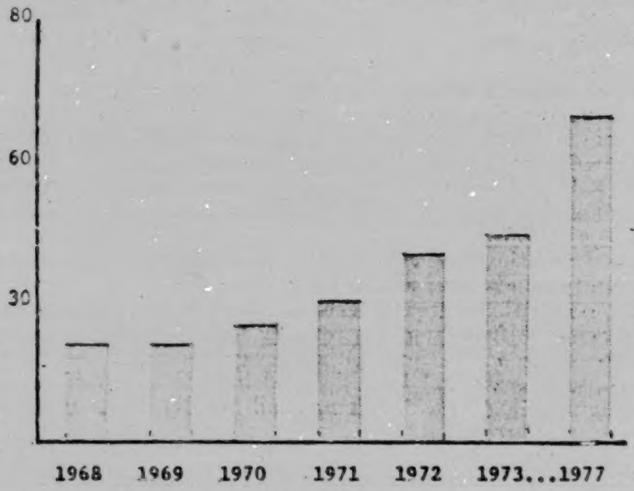
Includes programs in the elementary grades, where students will develop awareness of the many occupational careers available; develop awareness of self in relation to the occupational career role; develop foundations for wholesome attitudes toward work and society; develop attitudes of respect and appreciation toward workers in all fields; and make tentative choices of career cluster to explore in greater depth during midschool years.

The statutes following reflect only the enrollments in 11th and 12th grade programs and post-high school and adult enrollments in vocational programs. However, it is important to mention that the goal of educators in Oregon is to provide career awareness and career exploratory experiences to 100 percent of the students.

Total enrollments of all persons in vocational education programs within Oregon (including consumer and homemaking): 1963, 33,595; 1968, 60,170; 1972, 123,936; 1977 estimate, 147,377.

Specifically the State board of education has adopted the goal of preparing 70 percent of the 11th and 12th grade students by 1977 for their chosen careers through occupational cluster curriculums in our public high schools. Local districts have begun to accept the challenge of this goal as reflected in the following graph:

Percent STUDENT ENROLLMENT--APPROVED CLUSTERS GRADES 11 & 12.



PUBLIC LAW 90–576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

a. Job Training Enrollments (including Consumer and Homemaking)

	1963	1968	1972	1977 estimate
High school	11,827	29,655	63,821	76,912
Post high school	2,794	11,550	17,655	25,265
Adult	18,974	18,965	36,697	45,200
Total	33,595	60,170	118,173	147,377

b. General Description

The growth and development of Federal job training programs for youth and adults in terms of enrollments for fiscal years 1963 to 1977 (projected) has already been outlined in section (2)a. Extensive work is now underway in terms of identifying emerging job fields and correlating manpower demand with manpower supply in the state of Oregon through the development of a career program planning system. This computer-based data retrieval system will contain State and local manpower demand data, primarily obtained from the State employment service, as well as manpower supply data obtained from major training institutions throughout the State, including federally funded and nonfunded programs.

At present the 6-year projected manpower demand in wage and salary occupational areas in Oregon is as follows: Service, 15 percent; clerical, 13 percent; food service, 13 percent; marketing, 11 percent; health, 8 percent; construction, 7 percent; industrial mechanics, 6 percent; secretarial, 5 percent; metals, 3 percent; accounting, 3 percent; forestry, 2 percent; electricity-electronics, 2 percent; agriculture, 4 percent; graphics, 1 percent; not classified, 10 percent.

The major suppliers of trained manpower in Oregon include: Secondary vocational programs, community college programs, adult education, apprenticeship, private schools and universities. Other minor supply programs include such programs as MDTA, Job Corps, private industry, training and correctional facility programs. Several of these supply institutions are directly affected by Federal funding. In comparing the manpower demand-supply situation in its present form and looking ahead at emerging demand areas it is evident that there is some mismatch between demand and supply. Specific examples include a shortage of training programs in the service occupational area and saturation of the market in some high visibility careers in forestry. Efforts are underway at the secondary school level to implement vocational service occupation programs. Similarly, at the community college level several programs are being instituted in the emerging occupational area of legal assistant. In the forestry area emphasis is being shifted from the forestry technician type programs toward processing occupations. Other programs being implemented in response to state and local demand include an appraisal and assessor program, log truck driving and small engine-recreation vehicle mechanic programs.

The above-described career program planning system will help identify and provide data for the implementation of additional, extension or curtailment of existing manpower training programs in federally as well as nonfederally funded programs.

c. Postsecondary Courses (enrollments)

	1963	1968	1972	1977 estimate
Community college	2,356	1,550	22,444	25,265
Other adult	19,012	18,965	27,197	35,200

d. Disadvantaged Students (Secondary and Postsecondary Combined)

	1963	1968	1972	1977 estimate
Regular programs	(1)	(1)	5,140	8,300
Special needs programs	(1)	(1)	1,400	1,500

[1] Not available.

e. Handicapped Students (Secondary and Postsecondary Combined)

	1963	1968	1972	1977 estimate
Regular programs	(1)	(1)	1, 300	1, 700
Special needs programs	(1)	(1)	220	270

[1] Not available.

d and e explanation

The No. 1 priority of the Oregon Board of Education in meeting the needs of the disadvantaged and handicapped is to provide those services necessary for them to enroll an succeed in regular vocational programs. "The Oregon Way" establishes regular vocational programs as beginning at grade 11 and including 12, 13, and 14. The tables reflect this classification. If we were to include those disadvantaged and handicapped secondary students enrolled in exploratory programs (grades 9 and 10) and nonvocational (consumer) home-economics programs, the total number served in 1972 would be approximately 21,000.

In keeping with the priorities, as outlined in the State plans for vocational education, the numbers of disadvantaged or handicapped in regular programs should (with continued funding) expand. Correspondingly, the necessity for providing specialized programs for these students can be expected to decrease over time.

Categorical and set-aside funds have greatly enhanced our capacity to successfully integrate such severely handicapped individuals as the mentally retarded, the blind, the deaf, and the emotionally disturbed into regular programs. Of equal importance is their enabling local districts to provide supportive services and program modifications which assure success of the disadvantaged in regular programs.

We feel this emphasis on regular vocational program enrollment is necessary if vocational education is to be a viable means of preparing disadvantaged or handicapped students for meaningful employment.

	1963	1968	1972	1977 estimate
Preparatory enrollment (unemployed)	38	1, 578	19, 536	24, 860
Supplemental enrollment (employed)	7, 827	25, 206	15, 326	20, 340
Total	7, 865	26, 784	34, 862	45, 200
Federal manpower funds (MDT):				
Total enrollees	435	1, 353	1, 186	(1)
Completed	341	843	834	(1)
Still enrolled			116	(1)

[1] Not available.

g. Financing

(i) (a) The State board must consider manpower needs, job opportunities, differences in vocational education needs, relative ability of educational agencies to pay, and relative costs of programs in allocating the Federal funds to local educational agencies. The amount of reimbursement each district is to receive is determined as follows:

1. *Manpower needs and job opportunities.*—All districts' applications must show evidence that the vocational programs they plan to operate will meet current and projected manpower needs and job opportunities to be eligible for reimbursement. Secondary vocational

programs based on statewide development cluster curriculums will meet this requirement. Other clusters could be approved providing the manpower data is not overlapping and shows evidence of additional need.

2. *Vocational education needs.*—The number of students enrolled in approved vocational programs is taken as the primary indication of need. In addition, districts will receive a student needs grant, based on the number of disadvantaged and handicapped students enrolled in approved vocational education programs. Five percent of the funds were allocated in 1970 to serve the needs of this group to cover the added costs of vocational guidance and counseling, special teaching assistance, and instructional materials.

3. *Relative costs of programs.*—The basic excess costs grant allocated to each secondary school district is determined by using each district's average cost per ADM (average daily membership) and using a ratio of their average class size of approved vocational programs versus all education programs to determine the excess costs for vocational education students. Available funds are prorated to the districts, based on their share of the statewide enrollment.

This is based on the assumption that per pupil costs may be directly related to class size since approximately 70 percent of the programs' operating costs is attributed to instructor salaries and a significant part of the other costs are the same, regardless of the number of students involved.

The basic excess costs grant is allocated to community colleges on the "Lite-Bill" formula. For 1970, each community college received $127/FTE for the first 200 FTE and $76/FTE for all in excess of 200. This formula is based on the assumption that districts with small enrollments are more expensive to operate.

4. *Relative ability to provide resources.*—A minimum of 15 percent of the secondary funds are allocated to eligible secondary school districts through supplementary grants, varying with the districts' relative ability to pay. The amount of each district's payment will be based on its relative ability to support a basic level of expenditure for vocational programs as indicated by the district's true cash value per secondary average daily membership and on its relative expenditure per vocational student. The method to be used in distributing this grant is in accord with the practices used in the State's equalization program for basic school support.

No less than 10 percent of the community college funds are allocated on the basis of their relative true cash value of taxable property.

(i)(b) *Categorical funding distribution.*—The following categorical funds: Handicapped, disadvantaged, teacher education, special studies, curriculum, ancillary services, exemplary, exploratory, consumer-homemaking, cooperative education, work study, research, 102(b) special needs, EPDA, are distributed on a project merit basis. Statewide committees are used to assist the board in using evaluative criteria to determine projects that will receive priority funding.

(i)(c) *Matching provisions.*—Federal funds are allocated to local education agencies in a manner which will result in at least $1 of State and local funds being expended for each dollar of Federal funds expended for vocational education programs, services, and activities, but not in a manner which requires local educational agencies to match Federal funds at a percentage ratio which is uniform throughout the State.

State and local contribution to local schools in 1972 amounted to 4.3 times the amount of Federal Vo-Act funds received.

(ii) Population-Federal funds breakdown:

	Population	Percent	Federal	State and local	Percent
Portland	383,000	18.3	$1,084,525	$4,663,457	21
State of Oregon	2,091,000	100	5,083,191	21,857,721	100

Portland received 21 percent of the Vo-Act funds in 1972 and during the same period Portland's population was 18.3 percent of the State's. The comparison of Portland to the rest of the State is quite similar since the bulk of the Vo-Act funds are distributed on a per student basis as explained above.

h. *Construction and Equipment*

No part B funds have been utilized in the construction of facilities. The following estimate of investments in vocational facilities and equipments represents local funding for secondary level and combined State and local for community college.

1. SECONDARY

Years	No. of projects	Total cost	Percent for vocational	Vocational cost
1962-64	280	$47,000,000	10	$4,700,000
1964-66	267	61,000,000	10	6,100,000
1966-68	252	62,000,000	10	6,200,000
1968-70	232	73,500,000	12	8,820,000
1970-72	111	34,000,000	18	6,120,000
1972-74		(50,000,000)	20	10,000,000

2. Community college

[*Estimated*]

1963	$4,675,000
1968	4,675,000
1973	4,675,000

Explanation—Over the past 6 years, Oregon has spent approximately $8,500,000 per year for facilities and equipment for community colleges. It is estimated that 55 percent is for vocational training purposes.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. *Exemplary Programs and Projects*

Eight major exemplary projects were funded during fiscal year 1972 and covered a range of topics from elementary career awareness programs to community college curriculum development projects. A total of 85,760 students and 1,944 teachers and administrators were served by these projects. The primary focus of most of the projects was on the development of career awareness and career exploratory for learners in grades K-10 in the public schools. Such projects serve as demonstration sites for other districts throughout the State and region in these career education areas. There has been significant progress in the development and installation of career education programs because of the impact of exemplary funds.

In forecasting for the year 1977, it is anticipated that exemplary programs will continue to focus on the further refinement and installation of career education programs to the end that every public school in the State will offer career awareness and exploratory programs which enroll 100 percent of the learners in grades K–10.

b. Residential Vocational Education

There exists at least one high priority in the State for residential school programs. The six-eastern Oregon counties career education project, known as Sixco, includes a major component for meeting needs of predelinquent, predropout learners from throughout the State in a residential-type career education centered learning program. Three residential options are proposed in this component which is aimed at providing an alternative to institutionalization of first-offender juveniles and others whose personal and educational growth can better be served through relocation to a new living and learning setting. Portions of a former Air Force radar site would be modified to install both a residential capacity plus vocational training opportunities. The program would operate under the auspices of the Sixco project and a local school district. Students coming into the residential program would be considered transfer learners, and would participate in all normal and regular public school and community activities. Various options for length of program for individuals are provided. Federal funds are sorely needed to bring this program from proposal to reality.

c. Consumer Homemaking and Occupational Home Economics

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

		1967–68 (fiscal year 1968)		1971–72 (fiscal year 1972)					
	1962–63 (fiscal year 1963) vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	6,583	10,444	314	29,118	300	80	1,373	358	91
Adult	8,724	6,199	(1)	9,043	58	11	845	29	12
Total	15,307	16,643	314	38,161	358	91	2,218	387	103

[1] Not available.

Accomplishments in consumer-homemaking programs using part F funds during the past 4 years, 1969–72, have continuously emphasized programs for persons in high unemployment or the economically depressed areas, as well as serving handicapped persons.

Initial programs developed to meet needs of people have increased annually in enrollments with relatively little or no increase in funding as people become aware of the availability of such programs.

Assistance from local community agencies through involvement of advisory committee members has strengthened and multiplied the outreach of many programs.

Types of programs include: Confidence clinics for welfare mothers; a consumer education TV series covering such topics as: Living with your child, planning family spending, spotting consumer fraud, using food stamps, making home repairs, family communications, and making your own convenience foods. One area of the State organized 13 parent discussion groups using staff members skilled in parent education to follow up the TV series.

The consumer homemaking mobile classroom that serves the most populous area of the State last year reached over 5,400 persons from low-income, potentially disadvantaged families. Specially designed curriculum materials and handout information sheets reach special needs of audiences with low reading level abilities as well as bilingual audiences.

A 3-year development and implementation program for personal finance education has resulted in State board adoption of this program for high school graduation requirements by 1978.

d. Cooperative Vocational Education

Enrollments:

1963	NA
1968	NA
1972	5,000
1977	19,000

Cooperative work experience, in Oregon, is designed as a part of all vocational programs of instruction. In 1970 and 1971, emphasis was placed upon assisting local educational agencies in planning for, and initial implementation of, cooperative work experience into secondary and postsecondary institutions.

During 1972 increased efforts were made to provide assistance to those schools not yet providing cooperative work experience for their students, and to incorporate cooperative education into those curriculum areas still without adequate work experience opportunities.

Accomplishments in cooperative work experience for 1972 are as follows:

1. The number of students in cooperative work experience numbered over 5,000—representing an increase from 8 to 11.5 percent of the total of all students enrolled in secondary and postsecondary programs of vocational instruction over the preceding year.
2. The number of secondary schools providing cooperative work experience for students increased from 113 to 151 over the preceding year.
3. The number of community colleges offering cooperative work experience increased from 11 to 12, leaving only 1 college without such provision.
4. Forty local, regional, and statewide workshops in cooperative work experience were conducted for both secondary and postsecondary institutions by the State specialist.
5. Eighty-two percent of all of the secondary and postsecondary institutions, assisted with part G funds, were located in areas of high youth unemployment.

e. Students Served by Work-Study Programs

Secondary:	
1963	NA
1968	NA
1972	219
1977 (estimate)	800

Statistics from local educational agencies indicate a substantial degree of increased student retention and motivation in school as a result of financial assistance provided through work study programs.

Eighteen schools were provided part H funds for assisting economically disadvantaged students enrolled in programs of vocational education.

Forty-one percent of schools assisted were located in areas of high youth unemployment and student dropout rate.

Priority is always given to those projects submitted serving students in a financially depressed area or high student dropout rate.

Work study funds have been valuable to the individuals receiving the benefits. The total impact has been limited because a limited number of students of those who could be helped have received assistance.

f. Research and training

Part C, research funds for research and development have been aimed at high priority developmental efforts in across-the-board career education programs for learners at all levels. During fiscal year 1972, a total of nine such developmental projects were mounted in seven public school districts, one community college, and one university program. The primary effort of this R. & D. thrust is to prove-up innovative ideas and plans of local educational agencies which can contribute to the design and development of needed career education programs at all levels. In Oregon, the research and development effort is seen as a preliminary activity to the exemplary programs. Thus, the two funding sources are closely related and priorities are established which cause the greatest benefit to accrue from funds from both sources. Nearly 10,000 learners have been served through projects in this area during fiscal year 1972. Examples of three such projects follow:

> *Universities*—Oregon State, Dick Gardner, 754–2733. Phase II of a major preservice teacher education project designed to study existing career education courses for prospective teachers at all universities in the State, and incorporate findings into a planned 2-year model development process which would result in course offerings in career education for all prospective teachers at several colleges and universities in the State. An inter-institutional committee representing each institution involved advises and assists in planning. Oregon State University serves as pilot institution and project sponsor.
>
> *Career Awareness Projects*—Tigard, Jerry McBath, 639–4139 or 639–3137. Continuation—Phase II—of development of a comprehensive, articulated career awareness model program, grades 1–6, in one elementary school. Emphasis will be given to staff development, curriculum modification, and content develop-

ment for learners at each grade level. Major emphasis in phase II is to refine the model, revise materials and prepare for extension to other elementary buildings in the district.

STATE ADVISORY COUNCILS

Council has contributed in the following ways:

1. Provided advice in the formulation of administrative provisions regarding vocational education and State plan development.
2. Provided an evaluation of vocational education or a specific area of vocational education on an annual basis.
3. Identified program areas needing additional emphasis and provided support for making changes, especially in the areas of guidance and teacher education.
4. Provided support for State biennial budget requests supporting career education.
5. Recommended the development of a popular version of the State plan.

Actions taken

1. Increased emphasis on career education personnel development, particularly in relation to involving teacher education departments of all 4-year colleges and universities.
2. Strengthening the career guidance program through such activities as inclusion of strong guidance components in model projects, development of local guidance plans, and counselor inservice programs.
3. Have developed a ministate plan annually.

SUMMARY AND RECOMMENDATIONS

Summary of Progress

1. Adoption on the part of the Oregon Board of Education and local district school boards making career education—including vocational education—a primary objective of public education in Oregon.
2. The development of a total career education concept which is creating new ways to build bridges between school and earning a living.
3. Development of a community college system within the State which has vocational technical training as its primary focus. This system now includes 13 community colleges.
4. Development of occupational cluster programs as a means of providing vocational education at the senior high school level.
5. Development of a vocational personnel development system.
6. Adaptation of vocational programs to serve the needs of the disadvantaged and handicapped.
7. Creation of a curriculum development system which more closely relates programs to manpower needs and adapts instruction to the particular needs of students.
8. The infusion of consumer education into improvement of homemaking programs in high schools and community colleges.

9. Utilization of the community as a part of vocational education. In particular the expansion of cooperative work experience, use of business and industry sites and personnel, career job awareness and exploratory activities, and the extensive use of advisory committees for vocational program planning and evaluation.

Recommendation for improvements in Federal programs

1. The primary need continues to be advanced funding. This would permit realistic time for planning, which would result in the development of more effective programs.

2. Maintain categrocial funding for vocational education under existing Federal vocational education acts (Public Law 90-576); however, make provisions to allow State to transfer categorical funds to meet specific vocational training needs.

3. Provide immediate full funding under existing vocational education acts (Public Law 90-576).

4. There is a need for more adequate funding from the Federal level to cover the full range of career education programs.

5. Maintain Federal funding to the State through State educational agencies.

Comments regarding Better Schools Act of 1973:

We have concerns regarding the Better Schools Act of 1973. In particular, we are concerned because the act:

1. Repeals all existing Federal vocational education legislation, as well as the ESEA Act.

2. Eliminates all funding for consumer homemaking.

3. Places authority for fund allocation in the political arena (Governor), rather than through the duly authorized State education agency.

4. Permits 30 percent of vocational education funds to be transferred to other purposes—or with approval of a request, all funds allocated to vocational education could be transferred.

5. Affects program impact by making it dependent on presidential budget and Governor's distribution of funds each year—planning for continuity will be impossible.

In view of the foregoing, it is obvious that the bill in its present form poses a serious threat to the development of vocational education programs at a local through national level.

REORGANIZATION AND REGIONALIZATION OF THE U.S. OFFICE OF EDUCATION

We are in favor of the regionalization of the U.S.O.E. but not at the expense of the central U.S.O.E. office staff.

PENNSYLVANIA

State Director—John W. Struck

VOCATIONAL EDUCATION IN PENNSYLVANIA

a. Total Vocational Education Enrollments

	Enrollments (all programs)	Projected goal
Fiscal year:		
1963	106,848	
1968	300,051	
1972	327,458	
1977		341,710

The Vocational Education Act of 1963 and the Vocational Education Amendments Act of 1968 have played important roles in the growth, development, and consolidation of vocational education in Pennsylvania during the past 10 years. Both acts are responsible for changing goals, scope, quality, and quantity of vocational education operated by the public school system. Each act provided necessary resources, leadership, and guidelines in serving all ability levels of all races, creeds, and colors in all sections of the State. The 1963 Federal act set the stage for passage of two State laws in 1963 authorizing area programs of vocational education in any region of the State where the education needs of high school youth and adults are not being met. By virtue of Federal and State resources, Pennsylvania today is one of the leading States in the development of the area vocational-technical school concept at the senior high school level.

Although the Federal vocational education acts are considered matching acts, State and local school district dollars invested in vocational education exceed the amount of Federal funds invested on a ratio of approximately 6 to 1. In Pennsylvania, available Federal funds generate additional funding for vocational education at the State and local levels and in redirecting desired program activities.

The figures listed above indicate the significant growth of vocational education in Pennsylvania involving high school youth and adults in secondary, postsecondary and adult level programs.

PUBLIC LAW 90-576 PART B—VOCATIONAL EDUCATION PROGRAM

a. Job Training Enrollments

	1963	1968	1972	1977 (projected)
Total	106,848	300,051	[1] 327,458	[1] 341,710
Secondary	51,383	145,635	189,073	217,361
Postsecondary	2,807	3,247	29,844	52,099
Adult	52,658	151,169	108,541	72,250

[1] Unduplicated enrollments.

b. General Description

Part B of the Vocational Education Act of 1968 lists eight purposes for uses of Federal funds under that section of the act. VEMIS, Pennsylvania's sophisticated vocational education management information system developed with ancillary funds provided by the 1968 act, reports for 1972 enrollments listed above of persons served under the first seven purposes. Teachers and administrators provided for under purpose eight of that section for ancillary services are excluded.

Fiscal year 1972 is unique when one considers that 327,458 youth and adults were enrolled in one or more job training programs operated in the public schools or through contracted instruction with private institutions on the secondary, postsecondary, and adult levels.

ENROLLMENTS IN VOCATIONAL EDUCATION

	Level					
	Secondary		Postsecondary		Adult	
	1971	1972	1971	1972	1971	1972
Totals:						
Unduplicated	182,000	189,073	(1)	29,642	(1)	208,541
Duplicated	184,619	191,109	27,381	29,772	125,835	110,659
Agriculture	10,629	11,409	833	136	2,890	2,507
Distribution	9,008	10,206	2,210	1,534	236	315
Health occupations	1,692	2,281	6,390	9,139	1,641	1,415
Home economics	35,854	46,469			16,434	8,985
Gainful home economics	5,039	5,530	441	798	2,469	1,539
Business education	73,986	58,233	7,707	7,163	20,301	12,262
Technical education	8,960	9,866	4,975	6,519	4,248	3,388
Trade and industry	39,451	44,605	4,825	4,403	32,141	27,442
NEC (fire program and public service institute)					45,475	52,124

[1] Unknown.

State and local leaders are mindful of the fact that for most high school youth vocational education is the last opportunity to obtain marketable skills and knowledges leading to employment.

The 189,073 secondary school pupils reported for 1972 were enrolled in 3,757 vocational offerings designed to prepare them for labor market area jobs listed by Dictionary of Occupational Titles published by the Department of Labor.

The growth of vocational education in Pennsylvania has been phenomenal in a 10-year period from 1963–73 as a result of thoughtful Federal legislation. An act authorizing the establishment of area technical schools was enacted by the Pennsylvania General Assembly in 1953. This law lacked support and financial incentive. However, when it became evident that the Vocational Education Act of 1963 would be enacted by Congress providing categorical aid to bring about the added funds needed to build, equip and maintain the area vocational-technical school, two significant state laws were passed.

1. Act 299 provided for a planned reduction of the number of school districts from 2,000 to 505.
2. Act 463 provided major financial support by increasing the state share for construction costs.

It is evident by the statistics below that these legislative changes had an impact on the construction of area vocational schools. Federal funds represented 35 percent of the cost of construction and generated the needed local and State funds to build new modern educational facilities.

	Total vocational enrollments	Special schools	Area vocational schools operating
Fiscal year:			
1963	[1] 106, 848		5
1972	327, 458	8	[2] 67

[1] Includes secondary school youth grades 10–12.

[2] School youth and adults sharing same facilities in addition to vocational offerings conducted in 618 comprehensive high schools.

c. Postsecondary Occupational Programs in Community Colleges and Branch Campuses

Thoughtful consideration by the State board of education to provide an adequate program of postsecondary vocational education resulted in the passage of the Community College Act of 1963. This law, act 484, provides for the creation, establishment, and operation of public community colleges-technical institutes in the Commonwealth of Pennsylvania. Presently 41 institutions are responsible for expediting the occupational educational objective of those who graduated or dropped out of the secondary school. In addition to the transfer curriculum, an organized program of vocational, technical, pretechnical training or retraining is available for subprofessional preparation in recognized and emerging occupations. The enrollments reported below for 1971 include transfer as well as nontransfer students.

BREAKDOWN OF ENROLLMENTS (COMMUNITY COLLEGES)

	Transfer	Occupational	Total
Fiscal year:			
1965	(1)	(1)	5, 143
1966	6, 555	3, 910	10, 565
1967	11, 932	7, 955	19, 887
1968	17, 187	13, 489	30, 676
1969	19, 452	16, 643	36, 095
1970	21, 063	20, 661	41, 724
1971	25, 959	22, 856	48, 815

[1] Not applicable.

Organized programs of postsecondary level instruction are also available in 18 branch campuses in addition to the 14 community colleges. These 32 institutions reported 29,844 pupils enrolled in business, health, human services, trade and technology programs for fiscal 1972.

Forty-one programs geared to demands of new and emerging occupations were started in fiscal year 1971–72. A Penn State branch campus was credited with starting one new program while 40 were in the community colleges.

Sixteen of the new community college programs were 1-year programs and 24 new programs were 2-year programs. Below are some examples of unique courses offered in the Pennsylvania Community Colleges:

Community College of Philadelphia

Inhalation Therapy Technology.
Fire Science Technology.
Law Enforcement Technology.
Urban Affairs Technology.

Harrisburg Area Community College

Police Management.
Secretarial Science.
Urban and Regional Planning.
Transportation Engineering Technology.

Lehigh County Community College

Apparel Management.
Chemical Technology.
Physical Therapy Assistant.
Food Service Technology.

Community College of Allegheny County (Allegheny Campus)

Social Work Technician.
Research Technology.
Psychiatric Technology.
Structural Design and Drafting.

Williamsport Area Community College

Aviation Maintenance Technology.
Heavy Construction Equipment.
Operating and Servicing.
Automotive Mechanics.
Diesel Technology.
Floriculture.

d. Disadvantaged Students

Vocational education in Pennsylvania is committed to provide increased services to enhance the success of the disadvantaged and handicapped youth and adult not previously served by vocational education. Students may be disadvantaged educationally, economically, culturally or who through poverty, misfortune, or discrimination are in need of education and meaningful work which can lead to self-realization and participation in enriching activities offered by our society. The following major objectives of vocational education for the disadvantaged students give equal consideration to the needs for persons in rural regions, economically depressed areas and the large metropolitan cities.

1. Increase the special services, such as guidance, remedial programs, placement, etc., that are made available to disadvantaged students.
2. Increase the number of special vocational instructional services.
3. Increase the number of disadvantaged students enrolled in secondary vocational education.

The table below illustrates the growth in enrollments in both regular vocational programs and special needs programs stimulated by the set-asides in part B and 102–B of Public Law 90–576 for disadvantaged youth and adults.

TRAINING SERVICES TO DISADVANTAGED YOUTH AND ADULTS[1]

	1963	1968	1972	Goal for 1977
Total	2,792	3,248	23,712	41,114
Regular programs	2,792	3,248	18,382	31,000
Special needs programs			5,330	10,114

[1] These numbers included in sec. II-A.

Vocational education has had to learn to adapt vocational education programs to the needs of the disadvantaged person. In 1972, 14 new remedial programs in vocational reading and vocational mathematics were initiated. Funds have been provided to help vocational curriculums for disadvantaged students. Forty-five special programs, which included prevocational guidance in many programs, were established to assist many disadvantaged students admittance into vocational programs. Guidance and placement services to assist the disadvantaged in obtaining entry-level jobs represent the greatest increase of special services made available to the disadvantaged students in vocational education.

Thirty-two special vocational and instructional programs were continued and/or established for the disadvantaged students who could not succeed in regular vocational programs. This represents an increase of four special vocational programs in the State. Many of these programs have been established to meet the needs and provide marketable competencies for the multidisadvantaged students.

The disadvantaged funds were utilized to establish special services or programs to meet the needs of individuals rather than meeting the needs of disadvantaged target areas.

e. Handicapped

Another set-aside in the Vocational Education Amendments Act of 1968 directed State agencies to extend vocational programs to handicapped persons. To achieve this goal, local school administrators responsible for planning area programs within the State's 87 regional planning units were urged to establish local planning committees. These committees serve in an advisory committee. Members assist in examining needs, planning programs, and coordinating services to improve the lot of the handicapped person.

TRAINING SERVICES FOR HANDICAPPED YOUTH AND ADULTS[1]

	1963	1968	1972	Goal for 1977
Total			6,631	9,800
Regular programs			4,673	7,500
Special needs programs			1,958	2,300

[1] These numbers included in sec. II-A.

With the passage of Public Law 90-576, vocational education was charged with the responsibility to seek out persons with physical and/or mental handicaps and learn to adapt vocational programs to their needs. Every effort is made to adjust handicapped youth to the regular vocational program. A cooperative effort has been developed between special education services, vocational rehabilitation services and vocational education services to better serve the needs of handicapped youth. Set-aside funds are used to purchase the special equipment and personal services for remedial education for success in vocational programs.

A total of $2,336,907 of Federal funds was used to provide special services and/or special vocational instructional programs for the handicapped students. Prevocational experiences, which operated as summer programs and/or regular school programs, and prevocational guidance was offered to enhance the admittance of more handicapped students into vocational education programs. Thirty-four special guidance and placement programs were established. Handicapped students were also assisted in obtaining entry-level jobs by placement personnel. Many special programs were correlated with local industries to utilize the cooperative method of vocational training Eight new remedial programs in vocational reading and vocational mathematics were initiated. Funds have been provided to develop vocational curriculums for the handicapped.

Generally, handicapped funds were utilized to establish special services or programs to meet the needs of individuals properly defined and identified as handicapped students rather than meeting the needs of handicapped target areas.

Providing service to the handicapped is one of the most difficult areas for vocational education. During the past 4 years, vocational educators have learned where to find and how to better serve handicapped persons.

f. Adults

Vocational education in Pennsylvania is responding to the urging of Congress to serve more people of all ages of all sections of the State. For 1972, part B funds amounting to $707,289 augmented $5,412,000 of State funds to pay instructional salaries and other costs of operating programs for adults.

It is obvious a large number of the 108,541 adults reported for 1972 needed continued educational services to enable them to cope with the changes in our technological society and to retrain for upgrading, transfer into new jobs or new fields. Programs on the adult level have trained persons for new and emerging job opportunities in health, environmental, social, recreational areas, and occupations for the aged. Many training programs have been conducted in existing schools thus eliminating duplication of facilities, human and financial resources.

ADULTS ENROLLED IN VOCATIONAL PROGRAMS

	Preparatory	Supplemental	Apprenticeship
Total	33,856	227,345	17,915
1963	7,471	42,728	4,706
1968			
1972	11,685	90,347	6,509
1977 (projected)	14,700	94,270	6,700

g. Financing

1. *Part B—Funds.*—The massive planning for growth of vocational education programs to serve the increased youth and adults enrolled required an unprecedented investment of State/local funds. The $21,175,452 of Federal funds set aside to support part B programs in fiscal 1971–72 for the purposes defined in this section of the act was overmatched by State/local funds as follows:

Part B—State programs	Federal	State	Local
Secondary	3,800,161	37,678,839	54,683,676
Postsecondary	3,698,915		16,289,584
Disadvantaged	3,505,361		6,751,971
Handicapped	2,336,907		1,479,225
Construction	2,317,697		16,745,191
Adult	707,289	5,412,000	6,157,861
Ancillary services:			
State office support	1,454,403		
Teacher education	838,258	838,258	
Ancillary projects	2,516,467		
Total part B	21,175,458	43,929,097	104,513,246

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[1] Approximate estimated amounts.

An atmosphere of cooperation was achieved among school administrators when part B funds were distributed by formula to 87 regional planning units throughout the State. Nonvocational and vocational educators were learning side-by-side how to adapt vocational education programs to the needs of youth and adults. This massive planning effort proved the value of joint participation in long-range program plans.

Allocations released to the 87 planning units produced local education plans geared to achieve the purposes defined in part B of this section of the act. The allocated amounts were determined by criteria established in Public Law 90–576 based on the following factors in the formula.

1. D =Number of disadvantaged in the district.
2. MVE =Market valuation per school enrollee.
3. EBIH=Effective buying income per household of the country in which the school district is located.
4. DOR =High school dropout rate.
5. UR =Unemployment rate in the county.
6. EP =Expenditure per pupil in vocational education.
7. ED =Economically depressed area.
8. TN =Projected training need.
9. TEP =Expenditure per pupil in the district for all students.
10. H =Number of handicapped in the county for district if available.

Educational plan approvals were processed as indicated below for the respective parts of the act.

Secondary Regular—Disadvantaged

Local educational plans were submitted through each of the 87 planning units for the proposed use of the funds. After approval by the planning units, and regional office, a review committee at the State level evaluated the projects and recommended approval or disapproval to the State director of vocational education who took final action on the project.

Postsecondary

Fifteen percent was reserved for use by community colleges, branch campuses, and postsecondary institutions. Projects were submitted for their allocations.

Additional funds were reserved for area vocational-technical schools and comprehensive high schools for secondary institutions supporting postsecondary programs. All allocations were handled on a project bases, review committee, and final action by State director of vocational education.

Handicapped, Construction, and Adult

Projects were handled on individual basis from local education agencies. They were acted on by the regional staff, review committee in State office and final action taken by the State director.

Ancillary Services State Administration

Funds required for support of State officers were determined from the total basic part B allotment prior to determining field allocations. These funds augmented State operating budgets.

Teacher Education

Handled by budget requests from participating colleges and universities. Review was accomplished by state office staff and final action taken by the State director of vocational education.

Ancillary Projects

Defined as the services and activities necessary to assure quality in vocational education and consumer and homemaking education programs. These were considered on an individual proposal basis for a specific purpose. They were evaluated by a review committee and final action taken by the State director of vocational education.

2. *Federal-State Funds Released to Cities of Population in Excess of 250,000 (Philadelphia and Pittsburgh).*—Philadelphia and Pittsburgh have populations in excess of 250,000. The figures below for 1972 indicate very little disparity exists between the relative percentages of population and Federal and State allocations. The same situation appears to exist in the case of poorer rural areas. This would indicate that the current method of distribution of funds is working satisfactorily in accomplishing the purposes of the act.

DISTRIBUTION OF FEDERAL-STATE FUNDS, CITIES WITH POPULATION IN EXCESS OF 250,000, FISCAL YEAR 1971-72

City	Part B Federal funds	Percent	State funds	Percent	Population	Percent
Philadelphia	$2,530,267	(11.9)	$1,160,770	(12)	2,015,000	(17.2)
Pittsburgh	762,714	(3.6)	561,956	(6)	604,000	(5)
Statewide	21,175,458	(100)	9,500,000	(100)	11,675,000	(100)

h. Construction and equipment

Progress in expanding vocational education and services to secondary school youth and adults could not be achieved without additional school facilities. The 1963 and 1968 acts recognized that the massive planning of new facilities would require an unprecedented investment of funds. Congress in its wisdom of providing the first investment of Federal funds under the Vocational Education Act of 1963 opened the door for a Federal/State/local partnership in sharing building as well as equipment costs. The illustration in the following table indicates the value of joint investment of funds in the construction of vocational education facilities since 1963.

CONSTRUCTION OF VOCATIONAL FACILITIES

	1963-68	1969-72	1973-77 (projected)
Federal Vocational Acts, 1963 and 1968	$20, 341, 552	$13, 842, 198	$25, 000, 000
Appalachia	6, 502, 336	9, 620, 430	15, 000, 000
State	65, 000, 955	58, 881, 592	55, 000, 000
Local	19, 500, 286	17, 664, 477	20, 000, 000
Equipment cost	27, 771, 272	18, 627, 957	20, 000, 000
Total	139, 116, 401	118, 636, 654	135, 000, 000

Future construction will include new buildings and expansion of area vocational-technical schools, community colleges, and branch campuses. The program planning indicates the amount of additional State/local and Federal funds needed in order to provide the construction required to complete state plan goals.

PUBLIC LAW 90-576 OTHER FEDERAL PROGRAMS

a. Part D—Exemplary Programs and Projects

The funds made available to Pennsylvania under part D—exemplary programs were used to support activities providing experiences, new knowledge and insights relevant to introducing a concept of career education into the public school system. Only those exemplary activities were approved which would serve as a logical step toward bridging the gap between educational research and educational practice.

EXEMPLARY PROGRAMS IN CAREER RESOURCE CENTERS

1963	1968	1972	1977 (projected)
None	None	8 projects in 5 career resource centers.	15 projects in 20 career resource centers.

Reports for fiscal year 1972–73 list 11,916 pupils enrolled in four career education programs (K–14) within 16 school districts. State Board of Education interest continues on a high level in this movement which received a significant promotion nationally from Dr. Sidney Marland, Assistant Secretary for Education, U.S. Department of Health, Education, and Welfare.

This activity will require continuous attention in the years ahead and increased funding.

b. Part E—Residential Vocational Education

The movement to provide an adequate program of vocational education in all regions of Pennslvania appears to be a reality except in sparsely populated areas. To date area vocational education is available to all school youth and adults in 54 of the State's 67 counties. Within the remaining 13 counties participation in vocational offerings is restricted to home economics, business, agriculture, and distributive education programs conducted in comprehensive high schools. The paucity of population, great traveling distances among communities and the lack of a sizable school population, grades 10–12, to support a minimum 10 shop/laboratory program seriously hinder establishment of area vocational programs.

Several studies have been implemented to provide alternatives to local citizens. Full-tme residents schools are a possibility for providing vocational education programs in sparsely populated regions.

The residential section of Public Law 90–576 provides the concept for establishing residential vocational educational centers in the States and could replace the job corps centers under the Department of Labor.

This section of the act has never been funded. Congress should seriously consider funding of this section as an alternate to the present job corps programs. Congress may also rewrite legislation to support the operation of residential schools in providing vocational education to youth and adults in rural areas.

c. Part F—Consumer and Homemaking Education

ENROLLMENTS IN CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS PROGRAMS

	Home economics, 1963-68			1972					
				Part F—Consumer and homemaking			Part B—Gainful home economics[1]		
	Vocational	Useful	Gainful	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	18,701	31,562		[2]46,469	3,550	1,366	5,330	1,092	573
Adult	17,836	23,237		8,985			1,539		
Total	36,537	54,799		[2]55,454	3,550	1,366	7,069	1,092	573

[1] Includes gainful home economics (occupational home economics programs).
[2] Unduplicated.

While the major function of gainful home economics is preparation for employment, the importance of the quality of life intimates that consumer homemaking education is an essential force in preparing youth and adults for the role of homemaker and the improvement of home environment and the quality of family life. Since consumer education and home and family living are contributing factors in the educational development of youth and adults, a major shift in the redirection of the home economics curriculum at the secondary level was inevitable.

The majority of projects initiated over the past 3 years met the criteria as stated in Part F of the Vocational Education Amendments Act of 1968. Approved projects or programs contained innovative aspects focusing on the improvement of inner city family living in the major cities. Of the 103 projects approved, 50 were designed to meet the needs of disadvantaged individuals in the depressed areas of the Commonwealth. Pennsylvania surpassed the one-third amount of funds allocated for the depressed areas of the State. A substantial increase was noted in programs as well as enrollments of the disadvantaged and handicapped.

Following are several projects, briefly described, operating in depressed areas to help improve the quality of home and family living of the disadvantaged and handicapped.

FAMILY LIFE STABILIZATION IN FLOOD STRICKEN LUZERNE COUNTY CREATED BY AGNES—WEST SIDE AREA VOCATIONAL-TECHNICAL SCHOOL

A corps of home economists working with small groups are assisting flood families to adjust to a changed, physical, social and emotional environment caused by Agnes in 1972. Approximately 7,000 adults are involved. Federal cost—$114,190.40.

This program will be continued in fiscal year 1973–74.

SPECIAL PROGRAM IN CONSUMER HOMEMAKING EDUCATION FOR HANDICAPPED STUDENTS—MIDWESTERN INTERMEDIATE UNIT IV, MERCER COUNTY

This program specifically meets the needs of handicapped students, who cannot succeed in a regular vocational program. Forty students were involved.

CONSUMER HOMEMAKING EDUCATION VIA TV, FARRELL AREA SCHOOL DISTRICT, MERCER COUNTY

This is a TV program assisting individuals and families in improving home environment and how to succeed as wage earners and successful homemakers. Regular lessons are broadcast via community cable TV to citizens who otherwise would not obtain such offerings. Programs are available to homes both morning and afternoon on a scheduled basis with commitments of participation. Emphasis is on the practical and essential activities of daily living and home management. Programs meet needs of people from low income, AFDC disadvantaged families, dropouts of school age, young and the elderly adults. Fifty families are in the group receiving the programs.

d. Part G—Cooperative Vocational Education

ENROLLMENTS IN COOPERATIVE PROGRAMS

	1963	1968	1972	1977 (projected)
Total	1,616	(1)	1,422	5,200
Secondary	1,616	(1)	1,422	5,200

[1] Not applicable.

Pennsylvania has always promoted cooperative education despite the lack of impressive enrollment statistics in cooperative programs operated under part G provisions. During fiscal year 1972 a total of 10,295 youth were enrolled in cooperative vocational programs. These figures are included in enrollment reports listed in earlier sections of this report. All of the students enrolled in cooperative programs were engaged in learning and earning as part of their vocational education efforts.

Funds made available to Pennsylvania under part G were used to serve the needs of a special group of youth in the public schools. Programs were designed to encourage dropout-prone youth ages 14 to 16, to remain in school and to prove to them that they can be successful. On many occasions, cooperative operated programs encouraged students to select a job preparatory program at age 16. Reports from schools indicate success with potential dropouts in regards to their behavior towards school and preparation for the world of work. Below are two examples of cooperative programs developed since passage of Public Law 90–576:

1. *Crestwood School District, Mountaintop, Pa.*—This cooperative education program affords the non-college bound student the opportunity to explore a specific type of business according to his or her interest and ability in which they might wish full-time employment. It retains potential early-school leavers by offering them a general education along with the development of an occupational competence. The non-college bound student is aware of the vocational skills and attitudes needed prior to competitively entering the inevitable world of work. Also, it has taught and encouraged self-respect and pride as the two basic elements of employee honesty.

2. *The Glen Mills School, Glen Mills, Pa.*—Glen Mills has provided institutionalized, disadvantaged, delinquent youth (male) with training in the marketable skill of food processing; on-the-job practical experience at a cooperative food processing work station near the agency; related, basic education skills necessary to life survival; and job counseling and social adjustment counseling to effect positive work and behavioral attitudes. The school has prepared male youth to take their places in the world of work as gainfully employed food processing workers.

e. Part H—Work Study Programs for Vocational Education Students

Work-Study Enrollments

Secondary:	
1963	(¹)
1968	(¹)
1972	[2] 1,232
1977 (projected)	1,848

[1] Funds not available to support programs.
[2] Disadvantaged students.

Federal monies matched with State/local funds under the work study section of the act have proven useful in assisting pupils with financial problems to remain enrolled in vocational education programs. Work study programs relate the on-the-job experiences of tasks with the students vocational objective for gainful employment.

All work study programs operated in 1972 have been highly successful. The majority of the 1,232 work study students were reported employed by local school districts and area vocational-technical schools in such positions as receptionists, secretaries, clerks, custodial helpers and general maintenance. Financial assistance for needy students provided under this section of Public Law 90–576 and not the vocational training of the students is the focus of funding under this program.

Part C—Research and Training in Vocational Education

Part C funds made available to Pennsylvania under the Vocational Education Act of 1968 have been used to obtain information and new knowledge for the improvement, expansion and redirection of vocational education, services and activities. Since funds support research related activities to accomplish the following objectives:

1. Identify research priorities.
2. Provide grants to educational agencies for research studies.
3. Dissemination of research findings.
4. Improve employment and employability of graduates.

The State director of vocational education with the assistance of the research coordinating unit approved a total of 70 research and related projects to be conducted in Pennsylvania schools and colleges. Included were 17 minigrants to graduate students and classroom teachers. The minigrant programs in Pennsylvania provides incentives for classroom research and broadened opportunities for significant graduate research of problems and needs important to the total vocational program in Pennsylvania since funds are extremely limited. Two of the many research projects of particular significance supervised by the research coordinating unit in 1972 are:

VEIN, The Vocational Education Information Network.—VEIN, The Vocational Education Information Network, located at Millersville State College serves as the dissemination area of the Research Coordinating Unit in conducting literature searches and responding to research oriented questions. Vocational educators continually utilize VEIN's service to meet their need for knowledge, insight and exposure to new developments for improving professional skills, vocational education programs and services. Utilization of VEIN by vocational educators as well as non-vocational educators continues to increase.

Development of a School-Based Job Placement Model.—In cooperation with the Pennsylvania Bureau of Employment Security and a local school district, a school-based job placement service model was developed. This model assists the vocational administration in developing an effective employment placement service for graduates of vocational programs.

STATE ADVISORY COUNCIL

The State advisory council for vocational education was created by Congress through the Vocational Education Amendments Act of 1968. Since its inception in 1969, it has functioned very effectively with the administration of the State department of education. The council in the role of advising the State board in development and policy in administration of the State plan, allocation of funds among the various uses, review, and evaluation of vocational programs, services and activities, has made a number of significant contributions to the growth, development and improvement of vocational education during the past four years. Perhaps, the most significant contributions are the direct result of anual evaluations performed by the council over the past years. Below are several noteworthy contributions with a positive effect on vocational education:

1. The council conducted a national study of outstanding programs in vocational education for handicapped and disadvantaged students. A number of these programs have been implemented in Pennsylvania.

2. The council evaluations resulted in greater utilization of training stations to serve greater numbers of students.

[In percent]

Region	1969–70	1970–71
Western	67.8	89.0
Central	72.2	82.0
Eastern	66.0	74.5

3. A major concern of vocational education is the placement of graduates in jobs for which they were trained. A model of desirable placement procedures and follow-up services to assist graduates find

employment was developed as a cooperative venture involving the Research Coordinating Unit, the Pennsylvania Bureau of Employment Security and a local school district.

SUMMARY AND CONCLUSION

Enlightened leadership in State administration, legislative, State Board of Education and the administration in the State Department of Education encourage continued further development and expansion of vocational education. In Pennsylvania, like many other States, it is recognized that about 19 out of every 100 youth will obtain a college diploma and that by 1975 only 5 percent of the jobs in the labor force will be of the unskilled category. Incentives or categorical aid through Public Law 90-576 Federal funds have served to create programs to redirect vocational educational needs in the State as well as the Nation. The State and local communities have not placed all burdens for program development on Federal funds. Categorical aid to vocational education has created a strong Federal, State, local relationships in vocational education representing a system for the delivery of all job training efforts encouraged by Federal funds.

The development and expansion of vocational education over the past 10 years as mentioned previously has indeed been phenomenal. Despite past achievements, Pennsylvania must divert the vocational program towards the goals established for 1977 as indicated in the report. Federal funds appropriated for vocational education by Congress will help the State achieve the goals established for 1977. The State and local communities have demonstrated that program growth is dependent upon investment of dollars. Each has proven that they will more than match Federal investments but Federal funds for vocational education will need to be increased in order to achieve the goals established by Congress and accepted by the State and local communities.

RECOMMENDATIONS

The following recommendations are submitted to improve vocational education, legislation and the administration of vocational education.

1. Maintain categorical aid for vocational education under existing federal vocational education acts. (Public Law 90-576).
2. Provide funding for the residention section of the vocational education acts Public Law 90-576 as an alternative for the job corps program, funded presently under the Department of Labor. Improve the legislation to support residential schools in sparsely populated areas to be operated by local boards in States that will accept the responsibility.
3. Maintain funding in the States through State educational agencies.
4. Provide immediate full funding under existing vocational acts (Public Law 90-576) and initiate planning to determine the Federal share of investments to use vocational education for social and economic changes as envisioned by the States.

5. Provide funding and create on Federal and State levels an administrative organization having full responsibility and authority for placement of graduates of vocational education.

6. Support the development of an innovative simplified State/Federal vocational education plan. The plan should outline the basic minimum requirements for receiving funds and certifying compliance with the Federal requirements.

7. Provide funding to support auxiliary services to enhance the administration of vocational education through the vocational educational system.

8. Establish a separate office of vocational, technical and manpower development under the President parallel as nearly as possible the position responsible for manpower training in the Department of Labor.

9. Separate the educational budget from the total health, education and welfare budget.

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[COMMITTEE PRINT]

REPORTS ON THE IMPLEMENTATION OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968

GENERAL SUBCOMMITTEE ON EDUCATION

OF THE

COMMITTEE ON EDUCATION AND LABOR
HOUSE OF REPRESENTATIVES

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PART I

STATE DIRECTORS OF VOCATIONAL EDUCATION REPORTS—Continued

RHODE ISLAND

State Director—Peter Bowen

INTRODUCTION

During the past 10 years vocational education in *Rhode Island* has more than doubled in total enrollments and has become widely diversified in its vocational-technical offerings, program locations, and exemplary efforts.

Seven new vocational facilities have been built, four of which are now in the process of building additions in order to provide the space and varied offerings to meet the needs of the expanding economy and vocationally motivated population. The network of vocational schools is again increasing with two additional strategically located facilities being planned and scheduled to open in September 1975.

Currently applicants may elect to enter any one of 35 program areas including emerging career clusters such as environment control, child care and community services, plastics technology, health occupations, building maintenance, construction technology, graphic communications and property management.

Many of the new program areas prepare workers to be capable of entry-level employment in a variety of jobs, and stress the concept of a career ladder with numerous options and built-in flexibility.

Rhode Island is also expanding its vocational-technical training potential by encouraging the development of vocational programs in comprehensive high schools throughout the State. This is being accomplished through the use of Federal funds to stimulate the development of special course offerings for the handicapped and disadvantaged, from prevocational exposure and complete vocational programs in such areas as construction trades, distributive education, and business sciences. A large percentage of the comprehensive high schools in Rhode Island have now initiated one or more vocational programs not including Home Economics. The increased variety of programs available in comprehensive high schools is due in part to the recent development of minigrants in vocational education.

The minigrant is meant to be a 1-year award of up to $3,000 for a small-scale innovative project which fills one or more of the following needs:

1. Programs which train people for vocational specialties not found within the structure of the present vocational-technical schools.

2. Programs which discover and experiment with various short-term vocational training to encourage employment of disadvantaged adults and/or lead to lower dropout rates among youth.

3. Programs which fill specialized educational needs related to vocations.

As a result of the minigrant approach, many classroom teachers have written proposals for vocational programs and career education projects thus increasing their familiarity with vocational education and motivating many more of their students toward occupational objectives.

The new campus for Rhode Island Junior College opened in September of 1972 and has resulted in a significant increase in enrollment in and potential for postsecondary programs in the near future. A second campus is being planned to serve the Northern sector of the State within the next 4–5 years, and a third facility is planned to serve the Newport region.

The recent availability of area facilities combined with a policy of encouraging development of programs in comprehensive schools explains the recent large increase in vocational education enrollment for the State of Rhode Island.

In 1963 with only one State vocational facility available, enrollments reached a maximum of 9,000. In 1968, the first schools were on the drawing board but lacking substantial Federal funds as a stimulus enrollment was still very low at 9,799.

By 1972, with 7 secondary schools and 1 junior college operating at capacity, the enrollment jumped to 19,992. Taking into account the completion of two more schools, continued Federal funding, and the increased development of programs in comprehensive schools, the projected enrollment for 1977 will reach a minimum of 23,000.

GENERAL GROWTH AND DEVELOPMENT IN FEDERAL JOB TRAINING PROGRAMS FOR YOUTH AND ADULTS

Rhode Island vocational training offerings have expanded widely over the past 10 years. Programs now serve a large variety of needs since initiation and expansion of a broader variety of courses.

Significant expansion has taken place, for example, in the areas of distributive education, health, office occupations, and trades and industries.

Distributive education which covers a number of general merchandizing skills has expanded from 2 programs in 1963 to 22 secondary and several postsecondary offerings. Many of these programs are offered in comprehensive high schools throughout the State and all have been initiated through a receipt of Federal grants for vocational education. These programs are designed to lead to cooperative experiences in the junior and senior years of school and, therefore, have the added advantage of bridging the gap between school and work for the student as well as serving the needs of our economy.

Another service-oriented occupational program, growing rapidly throughout the United States, provides training in the health services. Rhode Island has continuously expanded its course offerings and population served in this area. Federal funds have been instrumental in seeding the growth and expansion of an extremely successful postsecondary practical nursing program operated by the State. Programs for nursing assistants, general health occupations for adults who have left school, and programs for disadvantaged adults who wish to prepare for various technological occupations within the health sciences have also been most successful in placing their graduates.

Secondary programs in multipurpose health occupational career training are presently available in six area vocational schools and additional programs will be included in one facility to open in 1975.

The ever increasing demand for graduates trained in computer technology and office skills has been met in Rhode Island by new programs to prepare secondary students and adults in data processing and basic computer technology. These programs are presently operating in six of our vocational schools. The department of education has also encouraged the development of business occupations programs in comprehensive high schools throughout the State and has recently funded several simulated office and cooperative business programs with school systems applying for grants to try innovative or exemplary concepts related to business occupations.

Program expansion is occurring in all service related occupations. New demands have produced programs in food services including training for chefs, bakers, and in restaurant management, as well as in child care and community service. Curricula for these latter two programs are being developed for use at both the secondary and postsecondary levels.

As growth continues in all of the presently represented training opportunities available to adults and high school students, new occupational programs are being researched and curriculums developed for emerging occupations to be offered in the vocational schools of Rhode Island. These include environmental control, plastics technology, and the clustering effect of a variety of skills to form such occupations as building maintenance and construction technology. Rhode Island is, therefore, responding to the challenge of meeting the occupational demands of the future while serving the needs of the present with all the resourcs at its command.

In 1963 with the exception of a single practical nursing program, public postsecondary vocational education was nonexistent in the State of Rhode Island.

In 1967, the State initiated several terminal education programs at Rhode Island Junior College for post high school students. By 1968, there was established a 2-year program in retail management and a 1-year program for medical lab assistants. In that year, also, students were admitted to new courses in industrial electronics, instrumentation, machine processes, and machine design. A total of 222 students were enrolled in those postsecondary programs and, in the area of health occupations, Rhode Island School of Practical Nursing had increased its enrollment to 210 students.

In the following 4 years, enrollment in postsecondary education incrase significantly to approximately 1,100 students. New postsecondary programs in the health field were developed in two area vocational schools. Rhode Island Junior College increased its offerings to include dental assistants, radiologic technology, food distribution, and chemical technology, while a postsecondary program for office occupations was funded with a private agency serving disadvantaged adults.

Approximately 20 percent of present students in postsecondary education are enrolled in vocational-technical programs. A projected increase to 35 percent by 1977 assures that two junior colleges will be constructed to house new programs and that Federal funding will be provided to stimulate additional postsecondary programs for disadvantaged in facilities other than Rhode Island Junior College. At present, two major private, nonprofit grants for postsecondary programs have been awarded and more efforts in this direction are anticipated.

It is also a goal to make available all vocational-technical schools for adult and postsecondary programs during evenings and on weekends in order to maximize use of these facilities. Career-ladder programs which involve both adult and postsecondary training are now in the planning stages and will be implemented in Spring, 1974.

DISADVANTAGED STUDENTS—ENROLLMENT BY REGULAR AND SPECIAL NEEDS PROGRAMS

Program name	1968	1972	1977
Agriculture	11	58	70
Distributive education	0	372	425
Trades and industries	61	518	600
Health	20	205	225
Home economics	0	1, 136	1, 230
Technical	0	81	100
Office	0	204	250
Special needs programs	61	262	300
Total	153	2, 836	3, 200

NOTE.—In 1963, no distinction was made in the records for disadvantaged or handicapped persons. In 1968, they were distinguished only as persons with special needs; therefore, the chart for handicapped persons (2E) will show the same figures for that year.

As is evident by the above figures, a great deal of progress has been made in developing programs to serve the disadvantaged population of Rhode Island. It has been and continues to be a priority to develop secondary, postsecondary, and adult programs which concentrate on persons with special needs. Specific programs relate to specific types of disadvantagement.

Present programs include those developed for school dropouts and potential dropouts, juvenile delinquents, inmates at the Adult Correctional Institution, and intensive training programs for adult members of racial minority groups.

Because a high percentage of disadvantaged students are located in the central cities of Rhode Island, the department has made a concentrated effort to establish programs in these cities so as to reach and provide vocational education opportunities to this segment of the population. Approximately 70 percent of the disadvantaged population enrolled in vocational education in 1972 resided in central cities.

Future objectives in this area include increasing the population to be served by 1977 and improving program quality. The Department intends to expand its occupational programs and is encouraging the development of alternate learning programs as vehicles for educating those who, for a variety of reasons, cannot relate to the educational structure as it presently stands.

An institute is soon to be given for preservice and inservice vocational teachers to orient them to the special needs of the disadvantaged. It is hypothesized that their resultant greater awareness will be accompanied by a more indepth, appropriate response to the needs of disadvantaged students.

HANDICAPPED STUDENTS—ENROLLMENT BY REGULAR AND SPECIAL NEEDS PROGRAMS

Program name	1968	1972	1977
Agriculture	11	11	15
Distributive education	0	7	15
Trades and industries	61	34	50
Health	20	12	20
Home economics	0	102	65
Technical	0	14	20
Office	0	8	15
Special programs	61	204	400
Total	153	392	600

NOTE.—In 1963, no distinction was made in the records for disadvantaged or handicapped persons. In 1968, they were distinguished only as persons with special needs; therefore, the chart for handicapped persons (2E) will show the same figures for that year.

The department of education has made significant progress in meeting the training of the handicapped during 1972. Areas of concentration included many programs for the mentally retarded and a unique program for students at the school for the deaf.

The employment readiness program at the school for the deaf provides initial training for the student in a variety of meaningful vocational skills. Included in the programs are business, jewelry making, working with metals, photography and silk screening, drafting, graphic arts, and machine shop. All vocational areas covered are interrelated so that each student becomes familiar with a variety of separate skills and combinations of them to better serve his or her vocational needs after leaving school.

Several programs have been initiated for the purpose of giving work skills and related social skills to the trainable and educable retarded. The final goal of vocational education projects in this area is to deinstitutionalize all capable retarded and place them employed in the community.

Federally funded co-op programs for retarded have been instituted in several school systems and training and placement programs have been funded at the State school and at various centers throughout the State.

In fiscal 1972, $163,921 was expended to serve 392 handicapped people in Rhode Island. Our present efforts have substantially increased the amount spent and the population served. It is a major objective of the department to increase the number of programs available and encourage professional development in the area.

As with disadvantaged, an institute is being provided for vocational education teachers at the secondary level to orient them to the special needs of the handicapped.

ADULT JOB TRAINING ENROLLMENT

Programs	1963			1968			1972			1977		
	Preparatory	Supplemental	Apprenticeship	Preparatory	Supplemental	Apprenticeship	Preparatory	Supplemental	Apprenticeship	Preparatory	Supplemental	Apprenticeship
Agriculture		15			114			156			200	
Distributive education				3	25			40		100	100	
Health		31			69		111	66	12	200	100	
Offices					42		40	219		200	300	
Technical		110			360		10	399	3	100	500	100
Trade and industrial		1, 158	354		1, 467	657		1, 917	1, 017	200	2, 200	1, 500
Total		1, 414	354	3	1, 777	657	161	2, 797	1, 032	800	3, 400	1, 600

NOTE.—These figures do not include adult preparatory or supplementary education in home economics. A breakdown of MDTA enrollments by fiscal year is not available; however, the attached report developed by MDTA in April of 1973 shows total adult vocational enrollment from October 1962 to March 1973. Manpower enrollment for 1972 was 1,698 adults.

MDTA TRAINING COURSES—STATEWIDE, PERIOD OCTOBER 1962 TO MARCH 31, 1973

Occupation	Total number courses	Number enrolled	Number completed	Obtained employment	Training related	Currently attending
Auto body repairman	10	210	129	113	100	3
Auto mechanic	9	335	201	175	133	0
Auto service station mechanic	2	41	26	22	12	0
Auto transmission mechanic	1	14	10	5	4	0
Bookkeeping and business machine operator	2	34	21	16	8	0
Building custodian	1	29	21	14	11	0
Clerical cluster	1	55	32	27	22	0
Clerk, general office	5	367	269	211	184	0
Clerk, stenographer	6	125	77	70	62	0
Clerk typist	6	185	129	100	75	0
Counselor trainee	1	30	26	26	26	0
Draftsman, architectural	4	91	62	51	44	0
Draftsman, mechanical	4	86	57	55	52	0
Draftsman, structural	1	15	10	10	10	0
Drill Press operator	1	8	8	8	8	0
Dry cleaning and laundry occupation	7	185	131	107	77	0
Electric appliance serviceman	1	31	22	18	9	0
Electronics mechanic	2	51	31	30	26	0
Homemaker	1	52	29	19	14	0
Janitor	1	19	11	7	2	0
Key punch operator	6	134	105	92	68	0
Loom fixer	10	211	129	116	112	0
Maid, ward	2	23	20	15	9	0
Maintenance mechanic	1	17	13	13	11	0
Medical laboratory assistant	3	35	24	22	21	0
Nurse, general duty (refresher)	2	79	78	78	78	0
Nurse aide	12	377	312	260	234	0
Offset pressman	1	24	19	15	14	0
Oil burner installation and serviceman	2	21	13	11	9	0
Pipefitter	1	27	16	16	16	0
Presser, hand	1	38	28	21	17	0
Production machine operator	20	652	385	361	299	0
Programer	8	204	140	132	118	0
Seamstress, house furnishings	1	13	10	6	3	0
Screw machine setup operator	5	189	116	102	84	0
Sheet metal worker	1	17	12	12	8	0
Single referrals	7	403	292	263	219	48
Small gasoline engine repairman	3	45	27	19	4	0
Spotter, general	1	46	33	28	14	0
Television service and repairman	3	52	27	20	15	0
Teller, banking	7	125	121	106	75	0
Truck mechanic	2	66	40	35	28	0
Turret lathe operator	7	227	134	115	93	0
Waitress	1	10	8	4	3	0
Ward attendant	1	11	11	10	8	0
Weaver	1	12	7	7	7	0
Welder	6	180	128	110	102	0
Total	181	5,201	3,550	3,073	2,548	48

NOTE.—Percent of graduates who have had employment after completing course, 86 percent. Percent of graduates employed who have had employment related to training, 83 percent.

FINANCING—CRITERIA FOR DETERMINING RELATIVE PRIORITY OF LOCAL APPLICATIONS FOR PART B FUNDING

a. Manpower needs and job opportunities

In allocating funds among local educational agencies, the State board gives consideration to information regarding current and projected manpower needs and job opportunities, including new and emerging needs and opportunities on the local, State, and national levels.

b. Vocational education needs

The State board also gives consideration to the relative vocational education needs of all the population groups referred to in the act in all geographic areas and communities in the State.

A statement of local vocational education needs and objectives together with appropriate supporting data such as characteristics of the population, the labor force, the disadvantaged and handicapped, unemployment and dropout rates as well as general economic status is prepared by the local education agency with assistance of the State staff and submitted to support the application for funding. Information includes reference to the vocational education needs of each of the various population groups and to financial burdens which may be placed upon the local agency by necessity of providing special education programs and services for vocational education students particularly those who are handicapped or disadvantaged.

Application review committees determine the weight to be assigned to applications with respect to this criterion by assessing the relative need of each local agency and by measuring local statements of need against the statewide need data used to prepare the State's long-range plan.

c. Relative ability to provide resources

In allocating funds among local educational agencies supported in whole or in part with local tax revenues, the State board gives consideration to their relative ability to provide the resources necessary to meet the vocational education needs in the areas or communities served by such agencies. In determining relative priority of local educational agencies in terms of their ability to pay, local education agencies serving areas which the State board has designated as economically depressed or high unemployment areas are given priority over local educational agencies not serving such areas. Within these two classes of local educational agencies, priorities are assigned to each local agency according to ability to pay as determined by the community's equalized weighted assessed valuation, median family income, level of support from State aid and total vocational program enrollment.

d. Relative costs of programs, services and activities

The State Board also gives consideration to the cost of the programs, services, and activities these local educational agencies provide which is in excess of the cost which may be normally attributed to the cost of education in such local educational agencies. Particular consideration is given to financial burdens which may be placed upon certain local educational agencies by the necessity of providing vocational education students, including disadvantaged and handicapped students, with special education programs and services such as compensatory or bilingual education which are not needed in areas or communities served by other local educational agencies in the State. Priorities with respect to this criterion will be established through a comparison of per capita costs specified in a given application with the statewide average per capita cost for similar programs, services, and activities.

e. Application of criteria in determining the relative priority of local applications

The application review committees in determining which local applications will be approved and in determining the percentage amount of the Federal share of the total cost of the programs, services, and activities proposed in each approved local application applies each of the criteria described above to local final proposals in order to establish a relative priority among such proposals.

Local application is assigned a quantitative value derived from consensus of the special staff committee which reviews all local applications. Applications are ranked according to the following criteria:

1. Manpower needs and job opportunities—20 points.—Applications may be assigned a value from 0–20 in accordance with the degree to which they present promise, in relation to other applications, of fulfilling manpower needs and job opportunities.

2. Vocational education needs—40 points.—Applications may be assigned a value from 0–40 in accordance with the degree to which they present promise, in relationship to other applications, of satisfying the vocational education needs of the population groups referred to in the act.

3. Relative ability to pay—30 points.—Application may be assigned a value from 0–30 in accordance with the relative ability of the local agency to pay the cost of training.

4. Relative cost of programs, services, activities—10 points.—Applications may be assigned a value from 0–10 in accordance with the relative excess cost which accrues to the local agency as a result of its providing special programs services and/or activities.

All newly funded proposals are recommended for maximum Federal funding in the event that sufficient funds are available. Financial responsibility for funded proposals will be assumed by the local educational agency within 3–5 years from the starting date of the project.

In the event of insufficient funds, applications will be funded according to the following schedule.

Point total assigned to application	*Federal support eligibility*
90 to 100	90 to 100
80 to 89	80 to 89
70 to 79	70 to 79
60 to 69	60 to 69
50 to 59	50 to 59
40 to 49	40 to 49
30 to 39	30 to 39

Determination of a precise percentage rate is based on an overall ratio of "funds available" against "amounts requested."

f. Matching of local funds for State ~~funds overall State matching~~.

The State board assures that Federal funds will be allocated to local educational agencies in a manner which will result in at least $1 of Federal funds expended under the State plan for vocational education programs, services, and activities under part B of the act, for each dollar for State and local funds combined, but not in a manner which requires local educational agencies to match Federal funds at a percentage ratio uniform throughout the State.

Reasonable tax effort

The State board assures that no local educational agency with taxing authority which is making a reasonable tax effort will be denied funds for the establishment of new vocational education programs solely because it is unable to pay the non-Federal share of the cost of such programs.

The tax effort of a local educational agency is represented by the ratio between the total annual revenues available to the agency for educational purposes and the total wealth of the local area or community served by the agency.

A local educational agency's tax effort is considered reasonable whenever it is equal to or greater than the State average tax effort.

A vocational school is planned to open in Cranston in 1975. Federal funded programs are expected to increase as a result of expanded interest in vocational-technical education allied with the planning of this new facility and its offerings.

Local budgetary issues retarded program and development in Providence. State and local procedures have now been adjusted so that Providence may participate more fully in the future.

East Providence was selected as the site for a major career education pilot effort in K–12, therefore bringing its Federal percentage somewhat out of line with State averages. Woonsocket and Pawtucket secured a larger percentage of Federal funds based on relative economic need in those cities including high dropout and unemployment rates.

*The remaining 26 towns include 9 which are depressed, rural in nature, and have relatively small populations. All of these towns except New Shoreham have access to programs in their respective area vocational school through a quota system based on the percentage of 9th grade population of the school district. The expenditures listed on the following page are a result of the town's participation in these programs.

New Shoreham has the unique characteristic of being an isolated island approximately 1 hour by ship from the nearest mainland port. Because of its unique characteristics, a special prevocational program covering six areas of exploration was developed for the purpose of exposing its youth to vocational opportunities on the island, and making them aware of those available throughout the State.

Rhode Island is a unique State in many ways including size, density, population breakdown, and general characteristics of population. No city within the State of Rhode Island exceeds a population of 250,000. A study by the Rhode Island Department of Community Affairs (1970) has determined that 35 of the 39 towns, or 88.4 percent of the State is economically depressed. It is also known that the dense metropolitan areas including Providence—(19 percent); Pawtucket—(8.1 percent); Warwick—(8.8 percent); Cranston—(7.7 percent); Woonsocket—(5.0 percent); and East Providence—(5.1

percent), account for 53.7 percent of the State's population. The largest city in the State is Providence with a population of 179,213 (1972 census figures).

Prior to 1963, Rhode Island distributed Federal funds among the State's vocational education programs at a rate uniform throughout the State. Application of the funding procedure described in g(i) has resulted in these six cities receiving proportionally more funds than other less-needy districts.

Name of city	Percent of State population	Federal amount received	Percent of Federal allotment	State contribution
Providence	19.0	$163,300	8.0	$34,020
Pawtucket	8.1	228,141	11.0	
Warwick	8.8	131,351	6.0	20,866
Cranston	7.7	46,619	2.2	
Woonsocket	5.0	184,287	9.0	
East Providence	5.1	255,637	12.0	21,089
Total	53.7		48.2	

NOTE.—The above chart does not reflect State or Federal funds for construction nor State contribution received by cities under our State aid formula.

Name	Percent of population	Federal amount	Percent of Federal	State amount
1. Charrlestown 2. Hopkinton 3. Richmond } Chariho	1.1	$62,000	2.9	$9,000
4. New Shoreham	.05	52,000	2.5	
5. Exeter 6. West Greenwich	.6	12,650	.6	2,900
7. Jamestown	.3	3,440	.1	
8. Foster 9. Glocester } Ponaganset	.8	13,120	.6	
Total	2.8		6.7	

NOTE.—The above chart does not reflect State or Federal funds for construction nor state contribution received by towns under our State Aid Formula.

EXEMPLARY PROGRAMS AND PROJECTS

Program Names	Number Served	Year
		1968
1. Environmental pollution control technology (curriculum development)	0	1972
2. Aquatic ecology	50	1972
3. Regional prevocational program	160	1972
4. ENVIRED	375	1972
5. Prevent dropouts, phase I (curriculum development)	0	1972
6. Machine operator—adult correctional institution	30	1972
7. Secretarial science cluster for disadvantaged minorities	60	1972
8. East Providence career education pilot (development)	0	1972

Number of programs	Number of students	Funding year
0	0	1968
8	675	1972
	6,000	1977

In 1972, as shown in the chart above, a variety of exemplary programs were funded with part D moneys. Career education programs were in the early developmental stages.

A high educational priority in the State of Rhode Island is to provide students with occupational information in order that they may be better able to make proper career choices. As a result of this priority, the Department of Education has initiated a major exemplary program in career education and several smaller experimental efforts.

The major program, which enrolls approximately 850 students, began in September 1972 in the East Providence School System. The goal of the project is to test the hypothesis that an individualized, learner-centered, career-oriented program is superior to the traditional group-oriented subject matter centered approach. Posttesting is presently being completed.

Due in part to the development of minigrants the Department of Education in 1973 funded several elementary and secondary classroom teachers for limited career education programs which familiarize students with a broad range of occupational clusters. This effort has resulted in two benefits: (1) Approximately 2,500 additional students have been provided with various approaches to career exposure, (2) Several LEA's have become enthused with career education as an educational delivery system and have applied for total system grants based on their positive experiences.

Residential Vocational Education.—Does not apply.

c. Consumer Homemaking and Occupational Home Economics

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

		1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
	1962-63 (fiscal year 1963) vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	2,665	3,409	24	7,589	(1)	(1)	42	29	
Adult	1,314			1,510	(1)	(1)			
Total	3,979	3,409	24	9,099	1,136	102	42	29	

[1] Not available.

A great deal of progress has taken place in consumer and homemaking education since passage of the amendments. Overall program shift has resulted in a new emphasis in 1968 on consumer education, a reconstructing of facilities, and preparation of curriculums for students in economically depressed areas. In 1972 a total of 940 students participated in consumer education courses. Over 1,300 disadvantaged persons were served by programs in fiscal 1972, 18 of these serving youth in economically depressed areas.

Complete revision of the existing homemaking programs occurred in several senior high schools. Proposals developed for this purpose had the dual focus of planning for reconstruction of physical facilities and development of a new curricula emphasizing consumer education. Renovations are complete and the new curriculum includes 14 courses, 7 of which are minicourses. All are tailored to the needs of special disadvantaged populations.

An additional effort to serve more adults in economically depressed areas consisted of a developed pilot project to help individual consumers from low-income families obtain knowledge and information about agencies providing services designed to aid consumers in obtaining maximum benefits from the financial resources of the marketplace. Four low-income communities were selected for the project—Providence, Pawtucket, Central Falls, and Woonsocket. Consumer meetings and workshops were well planned and very well accepted. Attendance at six open meetings associated with the project was over 800 and more than 300 persons attended the six workshops. Similar programs are being considered for future funding.

Adult programs appear to be slower in accepting the new direction toward consumer orientation as major interest and emphasis at this level remains with skill-oriented programs. Combinations of skill- and consumer-oriented programs are being initiated as a possible means of redirecting and refocusing the adult programs.

Through inservice workshops new techniques and methodology are being introduced to existing programs. The majority of teachers welcome information on materials and resources that can be used innovatively means to improve course content.

Future emphasis will continue along the present line of servicing consumers and the disadvantaged population. Major objectives include continuation of inservice courses and workshops for upgrading home economics teachers' skills particularly with regard to the consumer concept and utilization of new materials.

It is hoped that through these efforts the school systems in Rhode Island will, in the near future, be prepared to offer a relevant progression of course work in consumer home economics education at all educational levels with emphasis on the present needs of individual students.

Cooperative vocational education, Students serviced in co-op programs

Year:	Number of students
1963	52
1968	121
1972	749
1977	1,800

Enrollment goals for cooperative education were exceeded in 1972. During the year, 22 cooperative programs were conducted, an increase of 13 over fiscal year 1971. Twenty programs were operated at the secondary level and two at the postsecondary level. The total number of students enrolled in cooperative vocational education was 749. This represents an increase of 521 students over the previous year. Of the total number of students enrolled in vocational education at the secondary level, approximately 6 percent were involved in cooperative programs.

While the majority of the students were enrolled in distributive education, programs in agriculture, health occupations, technical fields and trade and industrial education were also offered.

The close relationship of school to the industrial world is evidenced not only by the involvement of students in on-the-job work experiences, but also by the active participation of employers who serve on local and State advisory committees. These committees are increasingly involved in the formulation and development of curricula for the various occupational areas as well as placement and promotional activities.

The educational continuum that now exists between secondary programs and higher education within the State has had a beneficial effect on student enrollment at postsecondary institutions. Many high school program graduates now have the opportunity to pursue cooperative education experiences at the midmanagement level in retail management programs at Rhode Island Junior College, Johnson and Wales College, and Roger Williams College.

Because co-op education has proven extremely beneficial and relevant to 11th, and 12th grade students in all vocational training programs, efforts continue to increase the number of programs available in both the area facilities and other secondary schools and to encourage_the hiring of local co-op education coordinators. Several such coordinators were added to high school staffs during 1973. Twenty-eight programs are now being funded under the amendments and approximately 1,100 students are presently being served.

WORK STUDY

Students served by work-study funds

Year:	*Number of students*
1963	0
1968	131
1972	58
1977	73

The State staff has been most successful in efforts to establish work-study programs in areas of the State having high concentrations of youth unemployment and school dropouts. While 58 students served last year represents a decrease in number over previous years, local educational agencies have tended toward operating year-round work-study programs for those few students considered most in need of financial assistance. Previous summer programs although providing assistance to a greater number of students were probably less effective on an individual basis. Rhode Island, with an annual allocation of less than $25,000 for work-study programs, has been unable to assist the many hundreds of vocational students who may have profited greatly from this part of the act.

Most of the Federal funds received in Rhode Island for research and training programs have been applied toward the development of a statewide information system for vocational program planning, operation, and evaluation.

The system is to serve as a pilot for the overall Rhode Island Educational Management Information System (RIEMIS) which will include all levels of education. It was organized in two phases: System analysis and design and, detailed design and implementation.

The scope of phase I involved four basic components: (1) Identification of data element inputs, (2) structuring a program accounting and budgeting system, (3) definition of system outputs, and (4) systems design as related to hardward and processing requirements.

The systems analysis and design phase achieved three major objectives:

1. Centralizing and integrating to the extent possible, the collection, processing, and dissemination of all information related to vocational education.

1. *Technical Effort.*—Tasks related to this step are directed to-the technical and procedural aspects of the system, and also the

2. Recognition of the user's needs in the Department of Education and at the local level, especially as those needs relate to the decisionmaking process.

3. Laying the groundwork necessary to establish planning, programing, and budgeting systems.

Phase II detailed design and implementation, takes into account the technical and procedural aspects of the system, and also the user's needs. It encompasses two major steps:

1. *Technical Effort.*—Tasks related to this step are directed toward the data processing aspects of the system such as those described below:

(*a*) Finalize systems design in terms of—field definitions and limits; file definitions.

(*b*) Finalize output specifications.

(*c*) Develop editing and data entry procedures.

(*d*) Develop computer programs.

(*e*) Prepare systems documentation.

2. *Step 2—User Effort.*—User manuals have been completed and seminars for those participating in the system are currently being conducted. During the next few months a "debugging" period involving only the State's Area Vocational schools will be initiated.

This system, which is unique in its design, promises to be among the foremost accomplishments in State administration achieved as a result of the vocational education amendments. We are hopeful that the system will prove to be attractive and transportable to other States thereby spreading out the cost effectiveness of dollars expended in its development.

Administration

Rhode Island's system of area vocational-technical facilities is somewhat unlike most other States. Facilities are constructed next to existing comprehensive high schools designated "area" receiving schools. Students from surrounding areas attend that high school instead of their own. Students in these facilities are part of the student body at the high school next to the facility and completely integrated into their curriculum offerings.

The facilities are owned by the State and constructed with State bond funds on land deeded to the State by the local community. Each of the secondary area facilities is directed by a coordinator of vocational-technical education and employs as many vocational guidance counselors as necessary to keep the ratio at 200:1. A cooperative education coordinator is also employed at the facility. His duties include the liaison responsibilities necessary to establish and monitor the combination work-study program which each senior high school student may elect.

Each regional vocational-technical facility is assisted by an area advisory committee, consisting of local representatives of business, labor and industry, developed to insure that the school's curriculum is adapting to the changing needs of both industry and students. The vocational system encourages cooperative programs, which are closely planned educational experiences in which students receive on-the-job training while under school supervision. These programs provide an opportunity for local business and industry to make a substantial contribution to education while developing a continuing supply of skilled labor well prepared for employment upon graduation. It is a training program which enables educators to provide vocational training situations impossible to duplicate in the classroom.

ENROLLMENT

Facilities	1968-69	1969-70	1970-71	1971-72	1972-73
Chariho Regional facility	125	227	234	234	271
Coventry area facility	170	267	370	473	478
East Providence area facility			381	416	462
Hanley Educational facility (Providence)			535	687	622
Newport area facility	225	340	361	377	414
William M. Davies, Jr., Vocational-Technical School (Lincoln)				397	613
Warwick area facility					335

Business-Industry-Labor Cooperation

Business, industry, and labor have continued to actively support and promote vocational education. Examples of such cooperation include the Rhode Island Builders Association which sponsored four student house building programs during 1971–72. The program will be expanded to two additional facilities this year. Several major modifications of the State provide annual incentive awards to outstanding vocational students and a large number of employers offer cooperative work experiences to in school youth.

CONTRIBUTIONS OF THE STATE ADVISORY COUNCIL

The Rhode Island State Advisory Council for Vocational and Technical Education, first established in April 1967, is composed of 19 members of diverse affiliations. In addition to those duties and responsibilities under the provisions of Public Law 90–576, the council has become actively involved in the advancement of vocational education through various promotional activities and maintains continuous contact with local area advisory committees.

The council published its first annual evaluation report of vocational-technical education in Rhode Island in June 1970. The study and analysis of the statewide program which provided a basis for the report, was conducted during the spring of 1970 by the American Vocational Research Corp. under contract with the council.

An analysis of the council's report was prepared by the Division of Vocational-Technical education and presented to the State board of regents in November 1970. This analysis responded to the following six primary factors considered in the evaluation and also provided recommendations concerning their implementation.

1. Industry, manpower and wages in Rhode Island.
2. Extent and direction of the vocational-technical education program.

3. Vocational guidance in Rhode Island public schools.
4. The disadvantaged.
5. State organization and administration.
6. Vocational education planning at the state, regional and local level.

The entire evaluation was considered by the Division to be an "objective assessment" and "a most helpful supplement to our own evaluative-planning effort." It was further noted by the Division that the report, in addition to its value as a comprehensive resource document, is also important in that it establishes further reinforcement of several specific goals and priority needs previously identified. * * *

The council's second evaluation report was completed in December 1971, and contained 17 separate recommendations. Satisfactory responses to these were developed in consultation with the council prior to submission of the fiscal year 1973 State plan. Specific actions taken in response to the recommendations were included in the response. Generally, the council's recommendations concern the advocacy of programs and services for both disadvantaged and minority persons. Responses to the third evaluation report are being developed in consultation with the council at the present time.

SUMMARY

As is clear from the above report, the impact of Federal vocational education funds on Rhode Island over the past 10 years has been far reaching as well as intensive. Approximately 4 million Federal dollars earmarked in the State for vocational school construction, from September 1965–69, have been instrumental in generating another 27 million State dollars for that purpose in a building program which is still ongoing. During the decade secondary program offerings increased from 12 to 33 and at the post-secondary level from 5 to 14. Enrollments, as a result, have doubled and promise to triple in the next few years. The Federal impetus has increased annual State-local spending for vocational programing from $500,000 per year to the present $7 million per year. Most importantly, thousands of Rhode Islanders, many of them disadvantaged who otherwise might not be, are today employed in satisfying occupations. Additional thousands of youth in our State remained in school to graduate because of a newly found relevance in their education as they advanced to a high school vocational program. These accomplishments, the result of combined Federal, State, and local initiatives, flow largely from the nature of the legislation under consideration. A review of the current Baseline study shows that significant program growth has occurred in every State. In no case have funds been siphoned off to purposes other than those intended by the Congress.

Statistics such as those provided by Baseline and these reports appear to present irrefutable evidence in support of continuation and expansion of categorized funding for vocational education. Elimination or major restructuring of existing vocational education legislation would, from our perspective in Rhode Island effectively erode the gains achieved since 1963.

SOUTH CAROLINA

State Director—L. L. Lewis

INTRODUCTION

Vocational education in South Carolina experienced substantial growth, both quantitatively and qualitatively, over the last 10-year period—made possible by the Vocational Education Act of 1963 and the 1968 Vocational Education Amendments.

Total vocational education enrollments for fiscal years 1963, 1968, 1972, and 1977 (projected) are as follows:

Fiscal year:	*Total enrollments*
1963	108,916
1968	131,526
1972	111,142
1977	149.618

Actual vocational education enrollment growth was most probably greater than that indicated by the increasing trend of total enrollments from 1963 to 1972. This apparent discrepancy is due to changes in report forms and enrollment accounting procedures over the 10-year period and suggests a degree of caution in comparing fiscal year total enrollments. Perhaps a more valid indication of vocational education growth is indicated by secondary enrollments which increased from 46,832 students in 1963 to 66,395 students in 1968 and to 85,389 students in 1972.

PUBLIC LAW 90-576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

a. Job Training Enrollments

VOCATIONAL EDUCATIONAL ENROLLMENTS

	1963				1968				1972				1977			
	Secondary	Postsecondary	Adult	Total	Secondary	Postsecondary	Adult	Total	Secondary	Postsecondary	Adult	Total	Secondary	Postsecondary	Adult	Total
Agriculture	15,312		26,506	41,818	16,721		17,967	34,688	12,741	152	8,458	21,351	5,311		5,100	10,411
Distributive education	1,080		1,859	2,939	2,337	14	2,622	4,973	4,506	36	377	4,919	5,302		800	6,102
Health		494	93	587	89	539	417	1,045	530	503	120	1,153	898	770	545	2,213
Home economics (gainful)					535		546	1,081	1,149		44	1,193	1,874		200	2,074
Office occupations					8,942		1,523	10,465	10,267	169	547	10,983	13,387		290	13,677
Technical	131	292		423	482	150	320	952		270		270		3,200		3,200
Trades and industry	6,138		6,074	12,212	8,579		8,869	17,448	13,720		6,557	20,277	24,198		8,000	32,198
Total	22,661	786	34,532	57,979	37,685	703	32,264	70,652	42,913	1,130	16,013	60,146	50,970	3,970	14,935	69,875

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[1] Does not include disadvantaged and handicapped enrollments.

b. General Description

South Carolina's economy changed from a predominantly agricultural base over the past 10-year period to an industrial oriented base, which presented a serious change to vocational education. Industrial diversification and continuing technological advancements demanded that vocational education have the capability to:

(*a*) Respond to the occupational training needs of employers and students;

(*b*) Have the capability for rapid response in adjusting existing programs, and

(*c*) Implement new programs to meet business-industrial needs.

As evidenced by the student enrollment data in table (2)a., vocational education had the capability to meet and accept this challenge which undoubtedly proved to be an important factor in sustaining the State of South Carolina's economic and industrial growth.

c. Postsecondary Courses

(1) South Carolina Technical Education Center postsecondary curriculum enrollment:

	Number of technical education centers	Fiscal year enrollment
Fiscal year:		
1962-63	1	539
1967-68	10	10,214
1971-62	17	18,759

Through legislation implemented in 1961, technical education in South Carolina became a reality. Initial master planning called for the development of 13 TEC centers, strategically located to provide 95 percent of the State's population an educational opportunity within a 30-mile radius. By fiscal year 1962–63, the first TEC center was in operation offering 10 curriculum programs with 539 students enrolled.

Today, those 13 TEC centers are in operation in addition to 3 former area trade schools and a regional manpower training center. Statewide curriculum enrollment exceeds 18,000 with over 100 postsecondary career program offerings.

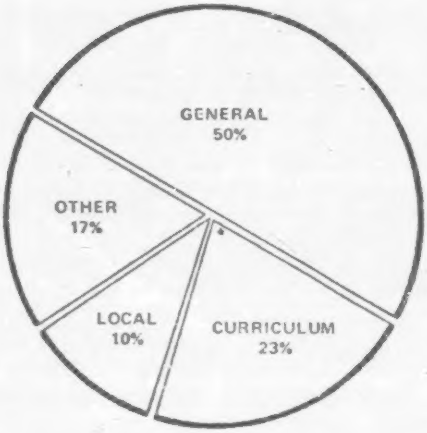
NOTE.—Reference TEC enrollment attachment Nos. 1–3.

(2) *South Carolina vocational education postsecondary enrollment.*

	1963	1968	1972	1977
Agriculture			152	
Health	494	539	503	770
Technical	292	150	270	3,200
Trades and industry				
Distributive education		14	36	
Office occupations			169	
Home economics (gainful)				
Total	786	703	1,130	3,970

Attachment #1

TEC CENTER ENROLLMENT
FY 1971-1972

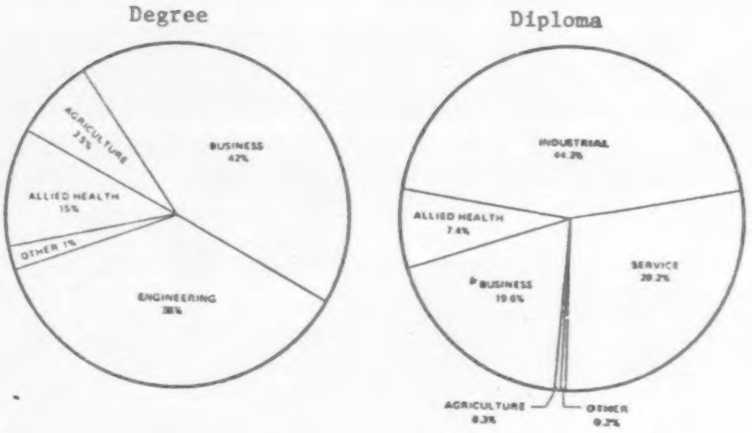


TEC CENTER	CURRICULUM	GENERAL	LOCAL	OTHER	TOTAL
Aiken	0	1,448	0	0	1,448
Beaufort	953	70	0	0	1,023
Berkeley-Charleston-Dorchester	2100	4,063	0	620	6,783
Chesterfield-Marlboro	282	584	235	198	1,299
Columbia	1,073	0	0	617	1,690
Denmark	669	0	0	149	818
Florence-Darlington	1,029	5,193	126	110	6,458
Greenville	2,516	3,408	1,309	5,240	12,473
Horry-Georgetown	597	3,492	573	397	5,059
Midlands	2,070	1,445	373	114	4,002
Orangeburg-Calhoun	1,175	3,657	843	534	6,209
Piedmont	1,026	4,448	858	1,930	8,262
Spartanburg	1,489	2,816	1,031	855	6,191
Sumter	625	2,277	628	1,077	4,607
Tri-County	1,252	5,993	2,186	431	9,362
York	787	1,468	74	336	2,665
Williamsburg	1,116	9	225	1287	2,637
TOTAL	18,759	40,371	8,461	13,895	81,486
PER CENT	23	50	10	17	–

SOURCE: TEC/MIS

Attachment #2

TEC CURRICULUM ENROLLMENT
October 1972



PROGRAM AREA	DEGREE PROGRAMS		DIPLOMA PROGRAMS	
	Number	Percent	Number	Percent
Agriculture	243	3.5%	18	0.3%
Allied Health	1087	15.5%	422	7.4%
Business	2940	42.0%	1116	19.6%
Engineering	2657	38.0%	NA	—
Industrial	NA	-	2519	44.3%
Service	NA	-	1607	28.2%
Other	69	1.0%	10	0.2%
TOTAL	6996	100%	5692	100%

N/A – Not Applicable
Source: TEC/MIS

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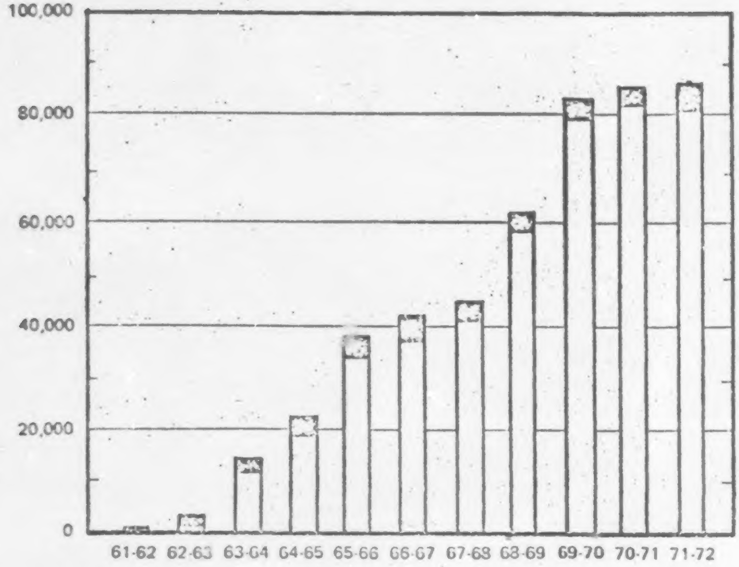
Attachment #3

TEC ENROLLMENT
1961-1972



FISCAL YEAR	TEC	SPECIAL SCHOOLS	TOTALS
1961-62		475	475
1962-63	1,122	2,190	3312
1963-64	11,867	2,785	14652
1964-65	18,659	2,824	21,483
1965-66	32,967	5,044	38,011
1966-67	37,046	5,704	42,750
1967-68	42,146	4,081	46,227
1968-69	59,817	4,419	64,236
1969-70	79,001	4,534	83,535
1970-71	81,415	3,804	85,219
1971-72	81,486	5,403	86889
TOTALS	445,526	41,263	486,789

☐ TECHNICAL EDUCATION CENTERS

▨ SPECIAL SCHOOLS

d. Disadvantaged Students

Disadvantaged:	*Enrollments*
1963	None
1968	None
1972	5, 419
1973	7, 718
1977	[1] 7, 718

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[1] No new funds are projected after 1973.

The programs for disavantaged are occupational in nature and designed to provide specific job skills. These programs enable disadvantaged students to secure jobs when they finish school or if they should find it necessary to drop out before completing high school. Approximately 10 percent of these programs are prevocational in nature and designed to give students exploratory training in basic vocational areas. This enables students to make wise choices regarding vocational training upon reaching the 11th grade. The programs for disadvantaged students continue to meet an important need in this State and should be continued.

e. Handicapped Students

1963	None
1968	None
1972	2, 867
1973	2, 992
1977	3, 119

The comments made on the programs for disadvantaged are applicable to the handicapped programs. These programs also fulfill important needs in this State and should be continued.

f. Adults

This information is not available. However, since the unemployment rate is very low, we can conclude that those individuals desiring to work are working.

g. Financing

(1) Part B funds are allocated to local educational agencies in accordance with the South Carolina State Plan for Vocational Education. Pertinent portions of this plan are shown in items 3.27, 3.27-1, 3.27-2, 3.27-3 below. Allocations are computed and notification sent to the 93 school districts breaking funds down by State and Federal funds. A local funding plan is then submitted showing how the funds will be spent—vocational (State and Federal) and local. Upon approval of local plan by the State department of education, districts submit quarterly requisitions for payment.

(2) Handicap and disadvantage funds are disbursed on individual projects submitted by local educational agencies. Upon approval of request, a grant award is sent to the local agencies giving total funds approved and a breakdown of approved budget. Reimbursement of same is made on a quarterly reimbursement method.

(3) Local funds by school districts are used to match salaries, travel, equipment, and supplies. Local agencies are required to maintain local effort in order to be eligible to receive Federal funds.

(4) South Carolina has no city over 250,000 population. All counties are treated on an equal basis as shown in State plan. Extracts of pertinent portion are shown on tables I–V which follow.

3.27 *Application of Criteria in Determining the Relative Priority of Local Applications.* Local educational agencies shall submit to the Director of the Office of Vocational Education project proposals for which they are requesting funding support. In allocating funds among educational agencies, the State Board shall give due consideration to current and projected manpower needs and job opportunities, the relative vocational education needs of all population groups, the relative ability of the area or community to provide the resources necessary to meet area or community vocational education needs, and the cost of programs, services, and activities which is in excess of the cost which may normally be attributed to the cost of education in local educational agencies. Vocational programs with less than minimum enrollments as outlined in paragraph 3.26–5 will not be funded. Ratings at 1–6 on the rating scale in Section 3.27–1 are arrived at in the following manner:

(1) *Ratio of Jobs Available.*—Utilizing the publication, *South Carolina's Manpower in Industry*, South Carolina Employment Security Commission, May 1972, the ratio of the number of jobs in each county to the total number of jobs in the State was determined. The average for the State was determined and assigned a value of 5.0 (the average raw factor for the State). As illustrated in Table I, each county was objectively assigned a weighted raw factor in the area of jobs available.

(2) *Percent Dropouts (1–12).*—Utilizing the publication, *Selected Data on Dropouts in South Carolina Schools*, South Carolina State Department of Education, April, 1971, the dropout rate for each county was objectively assigned a weighted raw factor in the area of dropouts.

TABLE I.—RATIO OF JOBS AVAILABLE IN THE AREA TO JOBS WITHIN THE STATE

County	Percent of jobs	Weighted factor
Greenville	11.88	
Richland	10.18	5.5
Charleston	8.10	
Spartanburg	7.27	5.4
Anderson	4.24	
Florence	3.78	
York	3.29	5.3
Lexington	2.61	
Greenwood	2.55	
Sumter	2.55	
Horry	2.52	
Orangeburg	2.41	
Pickens	2.33	
Aikens	2.10	5.2
Oconee	1.95	
Darlington	1.93	
Laurens	1.91	
Lancaster	1.79	5.1
Kershaw	1.42	
Cherokee	1.32	
Chester	1.30	
Marion	1.29	
Beaufort	1.24	
Chesterfield	1.22	
Georgetown	1.13	
Union	1.09	
Williamsburg	1.09	
Berkeley	1.09	
Newberry	1.06	
Marlboro	1.03	4.9
Dillon	.94	
Colleton	.92	
Abbeville	.81	
Dorchester	.80	
Clarendon	.79	
Barnwell	.73	
Fairfield	.61	
Bamburg	.60	
Hampton	.54	
Edgefield	.52	
Lee	.48	
Allendale	.47	
Saluda	.41	
Calhoun	.40	
Jasper	.33	
McCormick	.24	

Source: Taken from "South Carolina's Manpower in Industry," South Carolina Employment Security Commission, May 1972.

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TABLE II.—PERCENTAGE OF DROPOUTS 1969-70

County	Percent dropout	Weighted factor
Clarendon	68.0	
Lee	67.5	
Dillon	65.8	
McCormick	63.9	
Union	63.2	
Hampton	63.2	5.4
Allendale	61.7	
Bamberg	61.7	
Calhoun	61.7	
Barnwell	61.4	
Laurens	60.5	
Marlboro	60.2	5.3
Marion	59.9	
Chesterfield	59.9	
Abbeville	58.7	
Sumter	58.4	
Chester	57.5	
Williamsburg	55.2	5.2
Horry	53.5	
Charleston	53.3	
Newberry	53.3	
Fairfield	53.0	
Darlington	52.9	
Lancaster	52.6	
Orangeburg	52.2	5.1
Edgefield	51.9	
Cherokee	51.4	
Colleton	51.1	
Kershaw	50.5	
Oconee	50.4	4.9
Anderson	49.0	
York	47.6	
Beaufort	47.0	
Spartanburg	46.8	
Georgetown	45.9	
Berkeley	45.0	4.8
Jasper	44.8	
Florence	44.7	
Aiken	43.8	
Greenwood	41.8	
Richland	41.8	
Greenville	40.7	4.7
Pickens	38.4	
Saluda	38.2	
Lexington	35.6	
Dorchester	33.2	4.6

Source: Taken from table 20, "Selected data on Dropouts in South Carolina Schools," April 1971.

TABLE III.—NON-COLLEGE-BOUND GRADUATES—1970-71

County	Number not attending college	Percent not attending college	Weighted factor
Sumter	2,052	85.89	
McCormick	130	82.80	
Marlboro	269	82.52	5.5
Clarendon	334	79.33	
Lee	233	78.98	
Calhoun	109	77.86	
Berkeley	644	77.22	5.4
Williamsburg	515	75.74	
Georgetown	475	74.69	
Chesterfield	312	74.64	
Colleton	266	73.68	
Jasper	133	73.48	
Dillon	318	73.10	
Cherokee	332	72.81	5.3
Fairfield	186	70.99	
Marion	335	70.82	
Hampton	150	70.75	
Chester	287	70.69	
Union	266	70.00	5.2
Dorchester	365	69.13	
Abbeville	173	67.05	
Lancaster	386	66.67	
Kershaw	382	66.32	
Darlington	481	66.25	5.1
Anderson	780	65.66	
Pickens	486	65.41	
Saluda	96	64.86	
Lexington	769	64.08	
Florence	809	63.53	
Oconee	255	63.43	
Spartanburg	1,355	63.17	
Orangeburg	734	63.06	4.9
Beaufort	424	62.91	
Newberry	189	51.97	
Horry	626	61.86	4.8
Edgefield	104	60.82	
York	597	60.06	
Barnwell	139	59.66	
Bamberg	120	59.41	
Laurens	262	59.14	4.7
Charleston	1,479	58.34	
Greenwood	378	58.33	
Greenville	1,662	57.63	
Aiken	795	57.19	4.6
Allendale	77	54.23	
Richland	1,286	50.29	4.5

Source: This information was received from State department of education, office of research.

TABLE IV.—10-DAY HIGH SCHOOL ENROLLMENT—1972-73

County	Total enrollment (9-12)	Percentage	Weighted factor
Greenville	16,754	9.27	5.4
Charleston	15,022	8.37	
Richland	14,574	7.18	5.3
Spartanburg	10,400	5.12	
Lexington	7,800	4.48	5.2
Aiken	7,314	3.18	
Anderson	7,239	3.17	
Florence	6,937	3.14	
York	6,194	3.07	
Horry	5,990	3.05	
Sumter	5,932	3.04	5.1
Orangeburg	5,424	2.18	
Berkeley	5,324	2.16	
Darlington	4,132	2.05	
Pickens	3,880	2.02	4.9
Greenwood	3,468	1.16	
Lancaster	3,353	1.15	
Beaufort	2,974	1.12	
Williamsburg	2,947	1.11	
Goergetown	2,812	1.10	4.8
Oconee	2,786	1.09	
Dorchester	2,748	1.09	
Kershaw	2,743	1.09	
Chesterfield	2,498	1.07	
Laurens	2,479	1.06	
Marion	2,320	1.05	
Cherokee	2,293	1.05	
Chester	2,293	1.05	
Dillon	2,288	1.05	
Colleton	2,115	1.03	
Union	2,028	1.02	
Marlboro	1,996	1.02	
Clarendon	1,885	1.01	4.7
Newberry	1,747	.95	
Fairfield	1,486	.81	
Lee	1,357	.74	
Barnwell	1,347	.74	
Hampton	1,292	.71	
Abbeville	1,254	.68	
Edgefield	1,058	.53	
Bamberg	997	.57	4.6
Jasper	887	[illegible]	
Saluda	736	.41	
Calhoun	732	.41	
McCormick	648	.35	
Allendale	637	.35	4.5

Source: This information was secured from State department of education, State aid office.

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TABLE V.—RELATIVE ABILITY TO PAY

County	Total real and personal property for tax purposes—1971	Weighted factor
Greenville	155, 207, 893	
Richland	154, 363, 400	4. 4
Charleston	128, 608, 060	4. 5
Spartanburg	110, 845, 908	4. 6
Anderson	66, 316, 024	
Aiken	62, 207, 750	
Lexington	59, 166, 500	
York	57, 320, 593	4. 7
Florence	46, 631, 968	
Greenwood	41, 692, 903	
Horry	41, 342, 610	
Pickens	40, 269, 378	4. 8
Sumter	38, 982, 210	
Darlington	37, 989, 070	
Kershaw	32, 706, 417	
Orangeburg	32, 146, 520	4. 9
Georgetown	26, 865, 996	
Cherokee	24, 108, 440	
Laurens	23, 892, 290	
Lancaster	23, 541, 665	
Oconee	20, 708, 660	
Beaufort	20, 549, 080	
Chester	19, 572, 940	5. 1
Newberry	17, 618, 720	
Clarendon	17, 595, 120	
Berkeley	16, 383, 510	
Dorchester	15, 437, 730	
Union	15, 198, 280	
Chesterfield	14, 826, 850	
Marlboro	14, 452, 244	
Marion	13, 767, 950	
Dillon	13, 418, 100	
Colleton	13, 037, 155	
Williamsburg	12, 623, 280	5. 2
Abbeville	11, 928, 151	
Fairfield	11, 535, 471	
Calhoun	10, 246, 170	
Barnwell	9, 829, 330	
Hampton	9, 789, 340	
Edgefield	8, 137, 065	5. 3
Bamberg	6, 578, 110	
Saluda	6, 393, 809	
Lee	6, 248, 532	
Allendale	5, 814, 920	
Jasper	5, 767, 852	
McCormick	4, 633, 010	5. 4

Source: This information was received from the comptroller general's office, March 1973.

(3) *Percent Non-College Bound Graduates.*—Utilizing data available in the *South Carolina State Superintendent's Report*, South Carolina State Department of Education, January, 1972, the ratio of non-college bound students was determined. The average total of non-college bound students for the state was determined and assigned a value of 5.0 (the average raw factor for the state). As illustrated in Table III, each county was objectively assigned a weighted raw factor in the area of non-college bound graduates.

(4) *Percent High School Enrollment.*—Utilizing data available in the *South Carolina State Superintendent's Report*, South Carolina State Department of Education, January, 1972, the ratio of enrollment in grades 9–12 was determined. The average for the state was determined and assigned a value of 5.0 (the average raw factor for the state). As illustrated in Table IV, each county was objectively assigned a weighted raw factor in the area of high school enrollment.

(5) *Relative Ability to Pay.*—Utilizing data available from the Comptroller General's Office, 1973, the total real and personal property for tax purposes was determined. The average for the state was determined and assigned a value of 5.0 (the average raw factor for the state). As illustrated in Table V, each county was objectively assigned a weighted raw factor in the area of ability to pay.

(6) All school districts are treated alike on a basis of an excess cost factor of 1.

3.27–1 ***Rating scale for Determining the Relative Priority for Funding Projects:***

Manpower needs and job opportunities	Weight applied by State	High 6 5 4	Low 3 2 1
Ratio of jobs available in the area to jobs available in the State	3		
Vocational education needs:			
(a) Percent of dropouts (1-12)	4		
(b) Percent of noncollege bound graduates	5		
Relative ability to pay:			
Ratio to total annual tax revenue available to total wealth of community	2		
Excess costs:			
Considered to be so small as to be insignificant; individual cases to be considered on a "show cause" basis	1		

3.27-2 *State Average Weighted Factor:*

	Weight of factor	Raw factor	Weighted factor
Manpower needs	3	5	15
School dropouts	4	5	20
Noncollege	5	5	25
Ability to pay	2	5	10
Enrollment (9-12)	6	5	30
Excess	1	5	5
Total			105

Note: $\frac{105}{6}$=State average weighted factor.

Average reimbursement to schools=75 percent, thus, 75 percent=17.5 average weighted factor.

3.27 *Local Average Weighted Factor (Example):*

	Weight of factor	Raw factor	Weighted factor
Manpower needs	3	5.5	16.5
School dropouts	4	4.5	18.0
Noncollege	5	4.9	24.5
Ability to pay	2	4.7	9.4
Enrollment (9-12)	6	5.6	33.6
Excess cost	1	5.0	5.0
Total			107.0

Note: $\frac{107}{6}$=17.83.

State average weighted factor—17.5. Local average weighted factor (this school) = 17.83, thus, 17.5 percent: 17.83X percent. X = 76.41 percent.

To determine allocation to each local school district, the total of Federal, State, and local expenditures for vocational education programs during the base year 1971–72 is multiplied by the percent reimbursement obtained by formula.

h. Construction and Equipment

(1) The investment from Federal, State, and local funds for vocational centers for the years 1963 through 1968 is shown as exhibit 1.

(2) Exhibit 2 shows the same kind of investment for the year 1969–72.

(3) Exhibit 3 is a projection for investment in vocational centers for the year 1973–77.

(4) Exhibit 4 is a listing of vocational centers programed but not funded through 1977.

OFF 7719

EXHIBIT I.—CONSTRUCTION AND EQUIPMENT INVESTMENT FROM FEDERAL, STATE, AND LOCAL SOURCES, 1963 THROUGH 1968

Number	Date operation began	Name of center	Type of construction	Tota construction cost	Source of funds: Vocational Act	Source of funds: State	Source of funds: Local	Source of funds: Appalachian	Source of funds: Coastal Plains	Total equipment cost	Source of funds: Federal	Source of funds: State	Source of funds: Local or others
1	1966	Lancaster Vocational Center	New	$540,432	$220,266	$100,000	$220,266	0	0	$205,047	$24,960	$112,305	$67,782
2	1966	Union County Vocational School	Renovating	200,000	100,000	0	100,000	0	0	107,419	14,009	55,547	37,863
3	1966	Lower Richland Vocational Center	New	275,000	137,500	0	137,500	0	0	154,513	29,643	63,699	61,171
4	1966	Pickens County Area Vocational Education Center	New	718,000	213,000	0	340,000	$165,000	0	183,339	22,893	136,642	23,804
5	1967	Marion-Mullins Vocational Education Center	New	560,000	280,000	0	230,000	0	0	257,974	48,020	146,379	63,575
6	1967	Florence Area Vocational Center	New	828,000	414,000	0	414,000	0	0	173,422	25,105	111,145	37,172
7	1967	Aiken County Vocational Center	New	615,566	307,783	0	307,783	0	0	149,206	37,735	93,921	17,550
8	1967	Hartsville Area Vocational Center	New	365,955	182,977	0	182,978	0	0	131,123	26,048	64,105	40,970
9	1968	Oconee Vocational Education Center	New	400,000	100,000	0	80,000	220,000	0	86,454	36,418	50,036	0
10	1968	Greenwood County Vocational Facilities	New	500,000	250,000	0	250,000	0	0	87,131	0	87,131	0
11	1968	Daniel Morgan Vocational High School	New	1,000,000	265,500	0	200,150	534,350	0	131,320	21,321	109,999	0
12	1968	Cherokee Area Vocational Center	New	1,000,000	265,500	0	200,150	534,350	0	147,851	13,896	133,955	0
13	1968	Chester County Area Vocational Center	New	600,000	300,000		300,000	0	0	204,604	59,589	145,015	0
14	1968	Kershaw County Vocational Center	New	500,000	250,000	0	250,000	0	0	200,002	79,617	120,385	0
15	1968	Fairfield County Vocational Center	New	628,000	314,000	150,000	164,000	0	0	264,923	58,309	206,614	0

CONSTRUCTION AND EQUIPMENT INVESTMENT FROM FEDERAL, STATE, AND LOCAL SOURCES, EXHIBIT II.—1969 THROUGH 1972

Number	Date operation began	Name of center	Type of construction	Total construction cost	Source of funds: Vocational Act	Source of funds: State	Source of funds: Local	Source of funds: Appalachian	Source of funds: Coastal Plains	Total equipment cost	Source of funds: Federal	Source of funds: State	Source of funds: Local or other
1	1969	R. D. Anderson Area Vocational Center	New	$750,000	$187,500	0	$150,000	$412,500	0	$227,156	$29,802	$197,354	0
2	1969	Allendale County Vocational Educational Center	New	600,000	300,000	$150,000	150,000	0	0	261,687	40,440	221,247	0
3	1969	Barnwell County Area Vocational School	New	600,000	300,000	150,000	150,000	0	0	75,804	0	75,804	0
4	1969	Colleton County Area Vocational Center	New	600,000	300,000	150,000	150,000	0	0	210,163	15,752	194,411	0
5	1969	Wilson Area Vocational Center	New	600,000	300,000	150,000	150,000	0	0	368,044	33,811	334,233	0
6	1969	Marlboro Area Vocational Center	New	600,000	300,000	150,000	150,000	0	0	101,329	0	101,329	0
7	1970	McDuffie Vocational High School	New to existing.	528,000	139,000	0	114,000	275,000	0	152,634	0	152,634	0
8	1970	Dillon County Area Vocational Center	New	600,000	0	450,000	150,000	0	0	45,000	0	45,000	0
9	1970	Area II Horry County	Renovated	142,500	0	142,500	0	0	0				
10	1971	Donaldson Vocational Education Trianing Center	New	1,000,000	0	0	226,625	773,375	0	342,500	112,875	229,625	0
11	1971	H. B. Swofford Area Vocational Center	New	600,000	0	0	135,975	464,025	0	112,500	37,125	75,375	0
12	1971	Union County Vocational Center	New	626,666	352,500	117,500	156,666	0	0	0	0	0	0
13	1972	Cherokee Area Vocational Center Building "B"	Exp	340,000	0	0	68,000	$272,000	0	92,678	73,481	19,197	0
14	1972	Foothills Area Vocational Center Overuns	Rev	460,000	0	0	92,000	368,000	0	338,524	169,262	169,262	0
15	1972	Calhoun-Orangeburg Vocational Education Center	New	626,666	352,500	117,500	156,666	0	0	223,500	0	223,500	0
16	1972	Strom Thurmond Vocational Center	New	600,000	300,000	150,000	150,000	0	0	128,436	0	128,436	0
17	1972	Laurens County School District 55 Vocational Center.	New	600,000	300,000	150,000	150,000	0	0	123,000	0	123,000	0
18	1972	Lancaster Vocational Center	Exp	190,000	0	190,000	0	0	0				

EXHIBIT III.—CONSTRUCTION AND EQUIPMENT INVESTMENT FROM FEDERAL, STATE, AND LOCAL SOURCES, 1973 THROUGH 1977

1	1973	Cooper River Educational Occupational Center	New	$626,666	$352,500	$117,500	$156,666	0	0	$70,000		$70,000	
2	1973	Clarendon County Area Vocational Manpower Center.	New	650,000	300,000	150,000	100,000	0	100,000				
3	1973	Area III Vocational Center, Myrtle Beach	New	600,000	300,000	300,000	0	0	0				
4	1973	The District Three Career Occupational Center—Lake City.	New	600,000	300,000	150,000	150,000	0	0				
5	1973	Sumter County Career Manpower Center	New	860,000	300,000	150,000	260,000	0	150,000				
6	1973	Enoree Area Vocational Center	New	1,022,520	0	0	204,504	$818,016	0	70,000		70,000	
7	1973	Vocational Education Center, Anderson County District 1 and 2.	New	855,000	0	0	171,000	684,000	0				
			Overun	20,116	0	0	4,093	16,093	0				
8	1973	Darlington Career and Manpower Center	New	1,000,000	350,000	175,000	275,000	0	200,000				
9	1973	Rock Hill Occupational High School	New	1,500,000	500,000	250,000	650,000	0	[1] 100,000				
10	1973	R. D. Anderson Area Vocational Center, Overun	Exp	300,000	0	0	60,000	240,000	0	121,668	$60,834	60,834	0
			Overun	54,000	0	0	10,800	43,200	0				
11	1974	Dorchester County Vocational Center	New		350,000								
12	1974	Irmo-Chapin Vocational Center	New		350,000								
13	1974	Kershaw County Vocational Center	Exp	425,000	0	200,000	125,000	0	100,000				

[1] Model cities money.

EXHIBIT IV.—CONSTRUCTION AND EQUIPMENT INVESTMENT FROM FEDERAL, STATE, AND LOCAL SOURCES, 1973 THROUGH 1977

					Source of funds						Source of funds		
Number	Date operation began	Name of center	Type of construction	Total construction cost	Vocational Act	State	Local	Appalachian	Coastal Plains	Total equipment cost	Federal	State	Local or others
1		Abbeville County Vocational Center	New										
2		Berkeley County Vocational Center	New										
3		Charleston Vocational Center	New										
4		Florence District II Vocational Center	New										
5		Area I Vocational Center—Conway	New										
6		Lee County Vocational Center	New										
7		Lexington District I Vocational Center	New										
8		Lexington District II Vocational Center	New										
9		Newberry County Vocational Center	New										
10		Georgetown County Vocational Center	New										
11		Jasper County Vocational Center	New										
12		York District I Vocational Center	New										

(5) Exhibit 5 is a listing of vocational laboratory additions to 12 high schools for the years 1973 through 1977.

XHIBIT V.—CONSTRUCTION AND EQUIPMENT INVESTMENT FROM FEDERAL, STATE, AND LOCAL SOURCES, VOCATIONAL LABORATORIES TO EXISTING HIGH SCHOOLS, 1973 THROUGH 1977

Number	Date operation began	Name of center	Type of construction	Total construction cost	Source of funds: Vocational Act	Source of funds: State	Source of funds: Local	Source of funds: Appalachian	Source of funds: Coastal Plains	Total equipment cost	Source of funds: Federal	Source of funds: State	Source of funds: Local or others
1		Aiken High School, Aiken, County	New										
2		North Augusta Senior High, Aiken County	New										
3		Cheraw High School, Chesterfield County	New										
4		Chesterfield High School, Chesterfield County	New										
5		McBee High School, Chesterfield County	New										
6		Pageland High School, Chesterfiled County	New										
7		Hampton County Vocational Center	New										
8		McCormick County Vocational Center	New										
9		Eau Claire High School, Richland County	New										
10		St. Andrews High School, Richland County	New										
11		Hemingway High School, Williamsburg County	New										
12		Clover High School, York County	New										

a. Exemplary Programs and Projects

(1) "*Project Succeed*" is an exemplary program developed and made available at the high school level for underachievers and non-college-bound students with high dropout potential. The program curriculum departs from the traditional academic approach by including vocational exploration (prevocational) for a 2-year period in grades 9 and 10 that will lead to vocational specialization for a 2-year period in grades 11 and 12.

The major objectives of Project Succeed are to keep these students in school, involve them in meaningful learning experiences through which they can experience success as they improve academic skills and explore various vocational experiences leading to the selection of a specific career opportunity for which they will be trained.

The Project Succeed program is located throughout the State in 38 of the 46 counties with 120 schools involved. The program began in 1970–71 in 10 schools with 420 students enrolled. In 1971–72, 83 schools were involved with 4,343 students enrolled and in 1972–73 there were 120 schools with 8,272 students enrolled with a projection of all schools having the project in 1977 with an expected enrollment of 15,000 students.

Workshops are conducted each summer during the month of August for all Project Succeed teachers. They are given instruction in the use of teachers' guides and student materials. Approximately 1,000 teachers and counselors have participated in these workshops.

The students enrolled in Project Suceed are passing their work and finding success in school for the first time in their lives. While grades are deemphasized, they are important to the students who are grade conscious. In all grades the following percentages were earned by the students in English, math, science, prevocational, physical education, music, art, and so forth:

1971–72	*1970–71*
9.9% of the grades were A.	8% of the grades were A.
29.7% of the grades were B.	36% of the grades were B.
38.8% of the grades were C.	44% of the grades were C.
17.9% of the grades were D.	11% of the grades were D.
3.3% of the grades were F.	1% of the grades were F.
.4% of the grades were I.	

Out of these students who have been identified as having high dropout potential, only 5 percent dropped out. The average daily attendance of the project students are better than the State average.

The average annual instructional cost per student is $33.

(2) "*Career Education*".—South Carolina's portion of the commissioner's discretionary funds—part C, section 131(a), and part D, section 142(c), are being used to fund exemplary and research and development projects in career education.

The part D moneys were allocated in July of 1970 to region V educational services center for a tricounty career education project, which is in its final year of federally funded operation and serves approximately 2,300 students in grades 1 through 12.

The part C moneys were allocated in January of 1972 to a comprehensive career education effort administered jointly by the State department of education and Lexington School District 3. This project has involved all teachers and all 2,700 students in that district, and will be continued and expanded to another district in 1973–74.

These two project efforts have spearheaded both increased State department of education involvement and local districts' interests in and understanding of career education. Using these projects as a springboard, it is projected that 285,385 students will be involved in comprehensive career education in 1977, which represents approximately 45 percent of all South Carolina students.

b. Residential Vocational Education

South Carolina does not have a residential vocational education program neither does it contemplate such at this time.

c. Consumer and Homemaking

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	28,841	29,245	535	36,434			1,021	278	
Adult	27,733	27,698	436	2,169			44		
Total	56,574	56,943	971	38,603			1,065	278	

The consumer and homemaking section has included instruction in consumer education within each year of home economics ~~in~~ past years. During the 1972 summer, a curriculum guide was developed for a semester course in consumer education which was recommended to be taught in sequence with family life education. The semester course in consumer education gives emphasis to consumer education, consumer protection, and consumer agencies. Consumer education concepts are still included within other areas of consumer and homemaking.

Emphasis has been given by State consultants in working with teachers in economically depressed areas. Consultants have worked with teachers by providing curriculum materials for students who live in depressed areas and by providing in-service and workshops for teachers to better understand the nature of the learner and other learner needs. A 3-week institute is being held during the summer of 1973 specifically to work with teachers in economically depressed areas. The institute will emphasize communication skills.

d. Cooperative Vocational Education

The vocational education phase of cooperative education originated with the diversified occupations and distributive education programs. In the year 1963 this program's total enrollment was 1,535 students. Since the advent of special funds for cooperative part G programs, the cooperative program has expanded to include home economics-gainful, health occupations, office occupations, and agricultural education. In 1972, the combined total of cooperative part G and cooperative part B reached 5,786 students.

Cooperative education programs have rendered a valuable service in bridging the gap between school and employment, and also by offering a variety of occupational experiences that are not normally feasible in the typical vocational education program. The backbone of cooperative education is the students enrolled in cooperative on-the-job training programs linking classroom instruction with the world of work.

With the implementation of a new curriculum structure for our cooperative education programs and the projected economic expansion for the State of South Carolina, the prognosis for cooperative education's continual growth is very favorable. Our prognosis, however, is based upon the premise that adequate and continual fiscal support and funding will be maintained and forthcoming.

Statistical summary

1963 Cooperative enrollment	1,535
1968 Cooperative enrollment	2,964
1972 Cooperative enrollment	5,786
1977 Cooperative enrollment	7,628

e. Work Study Programs

A total of 483 students were enrolled in the work study program during the school year 1971–72.

There were no funds available for the work study program in either 1963 or 1968.

South Carolina could use $350,000 to operate a work study program for 1,000 eligible and worthy students. The funds are valuable in keeping students in school. The majority of the funds available to date have been used during the school year. We believe there is a need for expanding this program to provide employment for students during the summer months.

The funds available to South Carolina are not sufficient to meet the requests made on the office of vocational education from local school districts.

f. Research and Training

Part C funds provide the means and the stimulus for carrying out research and research-related activities directed toward the improvement of vocational education in South Carolina, expressed ultimately in terms of the preparedness of students for job entry and success.

A copy of the semiannual research coordinating unit activity report, covering the period July 31, 1972, to January 15, 1973, is attached. Also attached are brief summaries of three major RCU project efforts.

SEMI-ANNUAL RESEARCH ACTIVITY FOR SOUTH CAROLINA

REPORT PERIOD JULY 31, 1972 TO JANUARY 15, 1973

FROM: ***Gary J. Lashway, Supervisor, Research Coordinating Unit.***

Projects funded during period	Principal investigator and institution	Project duration	Grant award amount—pt. C
1. Title—"Development of a Guide for the Operation and Implementation of Adult Programs, Student Placement and Student Follow-up".	Mr. G. G. Woolard, Kershaw County School District.	Aug. 1, 1972, to June 30, 1973.	$26,638
2. Title—"The Continuation of the Development of a Statewide Curriculum in Graphic Communications, based on Behavioral Objectives and Self-Instructional Programs".	Mr. David W. Dailey, Oconee County School District.	Aug. 1, 1972, to June 30, 1973.	20,000

Projects Completed During Period

1. Development, review, editing, reproduction, and statewide dissemination of fourteen (14) Vocational Education Curriculum Guides based on behavioral objectives.

2. Development, reproduction, and statewide implementation of a microfilm occupational information system (Project VIEW).

Other Research Related Activities During Period

1. Implementation of a model Career Education program in Lexington School District #3.

2. Implementation of projects in the Appalachian Region of South Carolina to enhance the Adult Vocational Programs, to provide Job Placement Services to secondary graduates of the Region's Area Vocational Centers and to plan and conduct a Guidance Practicum-Inservice Training for school counselors.

3. Initiation of a project designed to investigate, evaluate, and plan for the development of Curricula based upon Career Clusters, standardized core curriculum, self-instructional and self-paced curriculum.

Projects or Activities Planned for Next Period

1. Completion of the two (2) projects funded during this report period.

2. First Phase completion and continuation of the Career Education Project in Lexington school District #3.

3. Initiation of an additional Career Education Project in a selected school district and completion of State Department of Education staff expansion to provide support services to project district.

4. Completion of statewide field testing and evaluation of Vocational Curriculum Guides and initiation of appropriate revisions.

5. Completion of first year evaluation of Project VIEW and initiation of appropriate revisions in first updating effort. Expansion of number of occupations from 129 to approximately 250.

6. Completion of Appalachian Region Adult Vocational Education, Job Placement, and Guidance Practicum Projects.

7. Continuation of Career Cluster Analysis-Planning Project.

8. Continuation and expansion of efforts to improve articulation between Industry-Education and Labor.

9. Development of a Vocational Education Handbook for school administrators.

10. Completion of a state survey of vocational teachers.

[Attachment No. 2]

PROJECT TITLE—RESEARCH AND DEVELOPMENT PROJECT IN CAREER EDUCATION

PROJECT OVERVIEW

The project was funded in January of 1972 through the Commissioner's discretionary portion of Part C, PL 90-576, and extends through June 30, 1973. The project is located in Lexington County School District Three (Batesburg-Leesville, South Carolina) which has a professional staff of about 130 and approximately 2,800 students.

PURPOSE

To develope a Career Education program in Lexington School District Three that has the potential, practically and economically, for statewide implementation.

STRATEGY

The project involves *all* teachers and *all* students in grades one through twelve and follows the Career Education scheme of awareness in the elementary grades, exploration in the middle grades and preparation in high school. The program's Career Education concepts are implemented by integrating them with existing subject matter, by increasing various guidance activities, and by utilizing local community resources.

OUTCOMES

To demonstrate and measure the effectiveness of Career Education with regard to the achievement of state objectives. To provide an informational handbook and audio-visual supplement for utilization by other school districts in South Carolina in establishing a "workable" Career Education program.

EVALUATION AND COST TRANSPORTABILITY FACTORS

The total effectiveness of this project effort is being evaluated by two disinterested agencies and by an internal feedback system. The determination of cost transportability factors is an expected outcome of this project effort.

[Attachment No. 3]

PROJECT TITLE—VOCATIONAL CURRICULUM GUIDES BASED ON THE CONCEPT OF BEHAVIORAL OBJECTIVES.

PROJECT VERVIEW

In August of 1972 the South Carolina Department of Education, Office of Vocational Education, contracted with qualified agencies to develop Vocational Curriculum Guides in fourteen high priority program areas. The completed curriculum guides, in pre-published form, were submitted to the RCU in June of 1972. During the summer the guides were reviewed, revised, reproduced, and disseminated by the RCU to all vocational teachers in the state. The guides were field tested during the 1972-73 school year and are presently in the process of being revised.

PURPOSE

To develop Vocational Education Curriculum Guides that reflect the job skill requiements of business-industry, that will offer a means for curriculum standardization throughout South Carolina, and that have the capability for continual updating to keep pace with change.

STRATEGY

The basic strategy is that of gaining the active involvement of vocational teachers and business-industry from development through field testing, evaluation analysis, revision, and implementation.

OUTCOMES

To evaluate, revise, and disseminate all cirriculum guides developed, in preparation for statewide implementation during the 1973–74 school year.

EVALUATION AND COST TRANSPORTABILITY FACTORS

The guides will be evaluated by all vocational teachers during the 1972–73 school year using evaluation instruments developed by the RCU. In addition, on-site evaluations will be conducted on a sample basis.

[Attachment No. 4]

PROJECT TITLE—"VIEW"--VITAL INFORMATION FOR EDUCATION AND WORK

PROJECT OVERVIEW

VIEW, a microfilm career informational system, was developed in coordination with the S. C. Employment Security Commission and the 3M Company. VIEW was implemented on a statewide basis during October of 1972 and included 120 occupations in the intial deck. The VIEW program is currently being updated and the number of occupations expanded to approximately 200 for implementation during the 1973–74 school year.

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PURPOSE

To provide secondary school students with an interesting but pertinent occupational information system that will motivate them to explore career opportunities and assist them in making their career decision.

STRATEGY

Grant awards were made to local school districts in purchasing microfilm reader-printers. The microfilm career informational aperture cards are being made available at no cost to participating school districts. The VIEW scripts are written at a fifth grade reading level for easy understanding and include cartoons to facilitate interest.

OUTCOMES

To develop a career information system that has the capability for continual updating, is relevant to existing job opportunities, and that will significantly improve the effectiveness of career guidance efforts throughout South Carolina.

EVALUATION AND COST TRANSPORTATION FACTORS

Evaluation is being conducted by means of on-site visitation and questionnaires directed to guidance counselors, teachers, and students.

STATE ADVISORY COUNCIL

This council served as an external influence in causing the two State agencies (vocational education under the State board of education, and technical education under the State board for technical and comprehensive education) to work in concert for purpose of coordination and articulation.

a. Significant Contributions

(1) Assisted in development of State plan for vocational education each year, thus reflecting the posture of persons outside the educational structure as ~~the~~ State plan was being developed.

(2) Annually provided an evaluation and evaluation report. An example of the recommendations concerned the allocation formula to local educational agencies, which initially provided no incentive to local districts to increase local effort. Upon recommendation and when it became possible, the appropriate changes were made to rectify the situation.

(3) Provided several studies on topics of concern which encompassed both agencies. Included were the areas of nursing education, higher education for vocational and technical administrators, ancillary services, and the need for a doctoral-level preparation program for administrators of vocational and technical education.

(4) Has helped to increase State board of education awareness of the importance of vocational education. While no direct cause and effect can be shown since the South Carolina Advisory Council on Vocational and Technical Education has been in existence, the State portion of support for vocational education increased dramatically.

(5) The advisory council was forefront in promoting needed changes in such areas as increasing utilization of facilities, a longer school year or changed pattern of scheduling, and career education. Support of this type, and the impetus provided, eases the administrative problems of introducing desirable changes.

(6) The advisory council has provided an effective avenue for communication from the black community to the Office of Vocational Education, with a resultant moderating effect.

b. Actions Taken in Response to Recommendations

(1) Positive steps have been taken to bring about a higher degree of articulation between vocational center directors and technical education center directors. This is very important since vocational education and technical education function under the direction of two different boards, in this State.

(2) Steps have been taken to provide a greater sharing of facilities, equipment, and instructional personnel between local institutions offering vocational education and technical education.

(3) Citizens advisory committees have been encouraged by the director of vocational education and these committees have made major contributions in program development.

(4) Aggressive action has been taken to acquaint public school personnel with the career education concept of preparation for further education. Also positive steps have been taken to insure that all vocational students have an employable job skill upon graduation.

(5) Steps have been taken to provide adult education in those vocational centers where facilities are available.

(6) Efforts are underway to obtain complete and comparable data on facility utilization which would include the critical factors of: space, time, students, classes, and cost.

SUMMARY AND RECOMMENDATIONS

a. Summary

The U.S. Congress, with the passage of the 1963 Federal Vocational Act (and subsequent amendments), has ushered in a decade of unprecedented progress for vocational education in South Carolina.

South Carolina's vocational education system was a stepchild within this State's educational complex in 1963, when only some $2 million in Federal funding was allocated for vocational education programs and enrollment totaled just over 47,000 persons.

However, the close of the 1971–72 school year saw South Carolina's vocational education enrollment hit 109,839 students,[7] with $7,462,231 in Federal funds expended for programs, alone, through the 1963 Federal act.

The hinge of this progressive expansion, and the backbone of our State's vocational education system, is our network of 33 modern vocational centers erected over the past decade through the 1963 act. Of the $18,794,885 required to construct these facilities, $6,732,026 was provided through the act and another $4,018,600 under the Federal Appalachian program.

The measure of the progress spurred by this center network is more than a quantitative one, however. These centers have made possible a vast improvement in the quality of vocational course offerings through both an increase in the number of classroom hours devoted to such instruction, and through the provision of modern laboratories to augment the learning process.

Most importantly, our center network offers the first substantial evidence that our vocational education system can meet its awesome challenge to train tomorrow's labor force in a State where 80 percent of the students entering the first grade do not go past the 12th grade.

However, the impact in this State of the 1963 act and other Federal allocations for vocational education has been one of dual stimuli over the past decade. First, this Federal emphasis has brought substantial funding into South Carolina which could not and would not have been otherwise applied to modernizing our vocational education system. Second, and more important, the Federal emphasis has fostered a willingness, on both the State and local levels, to similarly fund the improvement and expansion of vocational education programs.

Indicative of this crucial second stimulus is a proposed new $14 million allocation from the State level to meet 1973–74 vocational education needs, above and beyond the normal State allocation. Of this $14 million, some $8 million would go for new vocational center (wing) construction, $3 million for new vocational education equipment, and $3 million for new vocational teacher positions.

Note (in exhibits attached under paragraph 2h) that another 12 vocational centers/wings are funded or under construction for 1973–77, with an additional 12 centers proposed during that period. Finally, another 12 vocational wings are proposed for the same period.

The role of Congress has, therefore, been one of powerful and progressive leadership for this State's vocational education system. Curtailment or termination of this sustained Federal support would spell a decided setback for South Carolina's vocational education system, and strike a blow to the resolve of our State's 93 school districts to join in modernizing this system—a resolve which has welled with the tremendous progress over the past decade.

b. Recommendations

(1) *Federal Vocational Education Act* (*Public Law 90–576, and amendments*).—We cannot overemphasize the necessity for continuance of this act, with funding at a sustained level sufficient to insure continued progress toward a comprehensive vocational education system capable of meeting the demands of South Carolina's expanding job market. This act has been the single greatest impetus toward placing vocational education in its proper perspective within this State's educational complex.

(2) *Federal funding for vocational and manpower training.*—There is a critical need in South Carolina to vest within the State board of education authority to administer all Federal funding for vocational and manpower training. The stratification of this authority impairs the long-range educational planning process, impedes the efficiency of educational administration, and increases the avenues for distortion of funding priorities.

(3) *Better Schools Act of 1973.*—We are solidly and resolutely opposed to this act. As we have already stated, categorical Federal appropriations have ushered in unheralded progress for vocational

education in this State, maintaining a level of funding which fosters progress and setting a leadership emphasis that encourages proper support at the State and local levels of vocational education programs. This act would not only eliminate such categorical aid, but vest in the State's shifting political power structure the authority to lower or abolish the high funding priority which our vocational education complex has earned. The result would be to virtually halt our sustained progress at a critical point in this State's development, and to largely negate that progress already achieved.

(4) *Reorganization of the U.S. Office of Education* (*USOE*).—This recommendation should be construed in its proper perspective —that of constructive criticism. From the wealth of experience amassed by the staff of this office and our local educational personnel, excessive reorganization of the USOE has been the greatest stumbling block to its effectiveness. South Carolina educators at all levels report continuing difficulty in dealing with a USOE structure which is constantly undergoing change. We would steadfastly oppose continuance of this trend.

(5) *The USOE Occupational Bureau.*—The establishment of this body without adequate funding and staffing is not only a blow to vocational education in South Carolina, but across the Nation. We are convinced that the Bureau is one of the highest national priorities for vocational education, and we urge its immediate and full mobilization.

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SOUTH DAKOTA

State Director—E. B. Oleson

INTRODUCTION

The members of the South Dakota State Board of Vocational Education and I are grateful to have this opportunity to reflect the happenings in vocational education in South Dakota due to the Vocational Education Act of 1963, as amended in 1968. We realize that it is most difficult to pass legislation fitting to the needs of each State; therefore, we sincerely appreciate this opportunity to present the progress of vocational education in our State as a result of previous legislation. There are some recommendations which we believe will strengthen our education programs statewide, and, in the end result, provide for the welfare of the nation.

Vocational-technical education in South Dakota, as well as the Nation, is experiencing its greatest period of growth. Since the passage of the Vocational Education Act of 1963 (Public Law 88–210) and the 1968 Amendments (P.O. 90–576), the image of vocational education has changed dramatically nationwide. In South Dakota, it has changed so rapidly that resources have not been able to keep pace. Some of the pertinent data vital to an understanding of the problems affecting the progress of vocational education in South Dakota is as follows:

South Dakota is predominately a rural State, with an area of 77,049 square miles and a population of 665,257 people. The records show a continuous out-migration.

Since the implementation of the Vocational Education Act of 1963, in fiscal year 1965, Federal funds for vocational education have increased from $405,847 to $2,134,896 in fiscal year 1972. (Exhibit A)

State funds increased from $74,554 to $951,059. (State funds include appropriations for vocational education and other State funds expended for vocational training purposes.)

Local funds increased from $1,145,921 to $2,358,763.

Total from all sources has increased from $1,926,322 to $5,444,718.

The secondary enrollment in vocational education has grown from 10,551 students in fiscal year 1965 to 19,537 in 1972. The projected 1977 enrollment is 26,189. (Exhibit B.)

The South Dakota legislature has mandated a multi-district concept to initiate a series of secondary vocational education programs across the State. This will be discussed in depth in (3a).

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PUBLIC LAW 90-576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

a. Job Training Enrollments

	1963			1968			1973		
	Secondary	Postsecondary	Adult	Secondary	Postsecondary	Adult	Secondary	Postsecondary	Adult
Agriculture	3,036	0	1,404	2,954	0	2,297	3,600	129	1,440
Trade and industry	270	0	1,454	482	245	1,912	1,376	842	1,649
Distributive education	132	0	604	393	0	458	1,460	20	150
Business and office	0	0	0	350	0	1,231	700	143	990
Health occupation	0	103	0	0	159	0	39	438	0
Consumer home economics	0	0	0	39	0	0	245	0	500
Technical	0	12	17	251	135	0	0	457	0

There is a marked decrease in fiscal year 1972 adult enrollment because many adult programs did not fully meet specific occupational objectives for vocational reimbursement. Only the students enrolled in reimbursable programs were included in the fiscal year 1972 enrollment figure.

b. General Description

Prior to the passage of Public Law 88-210, Vocational Educational Act of 1963, Federal job training programs were limited to three programs in licensed practical nursing at the postsecondary level. All other vocational education in the State at the secondary level was agriculture and home economics. The State made no contribution in terms of financial aid to the schools for job training in the trade and industrial programs.

Since 1963, $1¼ million have been appropriated for financial assistance to the schools plus providing for a qualified State supervisory staff and a full-time director. Prior to 1963, the State staff was limited to three people: a supervisor of agriculture, home economics, and a part-time man serving trade and industrial and distributive education.

Legislation has been passed to provide for multidistrict centers to provided secondary vocational education. Also, there has been legislation passed to provide some transportation to encourage districts to participate. This legislation was passed as a result of the exemplary project under part D of the Vocational Amendments of 1968. Details of this will be supplied under (3a).

All postsecondary programs other than the three licensed practical nursing programs have begun as a result of the Vocational Education Act of 1963 as amended in 1968 (exhibits C and D).

Adult education has not increased in numbers; however, the objectives are now being met and the quality is excellent. Financial resources are the limiting factor. The State or local districts do not feel an obligation to meet the needs of adult citizens from local school district funds. This philosophy is now changing somewhat, as the postsecondary area schools have developed and projected a new image.

South Dakota does not have a community or junior college system, nor do they intend to develop this concept as the State has seven State-supported colleges. It has been suggested that one or two of these institutions may change their role and become vocational schools.

c. Post secondary Courses

Postsecondary enrollment in South Dakota, through the five area vocational schools, has had the most significant growth. Fiscal year 1965 showed 438 students enrolled and fiscal year 1972 showed 2,002 students enrolled. This is a 357-percent increase over the 1965 enrollment figure. The projected enrollment in postsecondary area vocational schools in 1977 is 3,083 (exhibits B and C).

d. Disadvantaged Students

The rural disadvantaged have had little assistance from society and have not taken the initiative to improve their own conditions. Interestingly, the rural poor have not rioted, burned, or looted. They are too scattered and most are unaware of the scope of their poverty. The number of disadvantaged students by year:

1963	0
1968	35
1972	3,000
1977 (projected)	4,000

Services have been extended to include the youth forestry camp (juvenile offenders), State penitentiary, and disadvantaged students enrolled in regular vocational education programs through services rendered by documented teacher time spent over and above their normal assignment. With the concept of multidistrict enabling legislation, there will be a definite need to develop services to disadvantaged students enrolled.

By 1977, it is anticipated that educational and socioeconomic programs that have not reached the rural disadvantaged can be achieved. They have benefited little from the present efforts of society to change the lot of the Nation's poor. South Dakota is attempting to develop data on numbers of disadvantaged persons served, classified by type of disadvantagement, which is needed to permit evaluation and an analysis of expenditures of funds in relation to effectiveness of programs. The division of vocational education has the philosophy of maintaining all students in regular programs if possible. If, however, a disadvantaged student cannot succeed in a regular program, special services are developed to prepare him for entry and to enable him to maintain his status in a regular program.

e. Handicapped Students

The number of handicapped students for the following years include:

1963	0
1968	15
1972	1,400
1977 (projected)	2,000

Services to handicapped students include South Dakota School for the Deaf, occupational training for identified special education students, and the traditional service to identified handicapped students enrolled in regular vocational education programs. Overall, State agencies must cooperate in order to comingle expertise and identification of handicapped students seeking and requiring skill training and job entry.

f. Adults

Adults in preparatory programs using part B regular funds by fiscal year are as follows:

Fiscal year:	
1963	4,963
1968	6,427
1972	4,831
1977 (projected)	6,500

The figures in fiscal year 1972 show a marked decrease because many adult programs did not fully meet specific occupational objectives for vocational reimbursement. Only students enrolled in reimbursable programs were counted in the fiscal 1972 figure. It is felt that all programs have now been designed to meet occupational objectives and the trend will be to increase each year.

g. Financing

(i) Part B funds are distributed to local districts offering approved vocational education programs as a partial reimbursement for expenditures made in the operation of these programs. The rate of reimbursement, which varies among school districts, is determined by the following six factors:

1. Manpower needs and job opportunities—greater weight given to areas of greatest need.
2. Vocational education needs—determined by the high school dropout rate and the number of students not going on to higher education.
3. Ability to pay—measured by the assessed valuation per child in the school district.
4. Excess costs—unusual, nonrecurring costs attributable to a vocational program.
5. Local effort—a comparison of the maximum amount of funds that could be raised for school purposes under present statutory limitations with the amount a district is presently raising.
6. Depressed areas—provisions for extra consideration for school districts located within areas designated as economically depressed.

A list of the schools and the reimbursement percentages for each for the last fiscal year is attached (exhibit D).

The local school's expenditures for vocational programs are used as matching for the Federal funds. On a statewide basis, the local and State expenditures exceed the Federal funds by a ratio of 3 to 2.

(ii) The population of the largest city in the State is approximately 80,000, so this question does not apply. The State is predominantly rural with no section being significantly poorer than any other.

South Dakota has seven Indian reservations with an Indian population of 32,365 (exhibit A). The Bureau of Indian Affairs has jurisdiction over the BIA schools. It has been quite evident in the past that vocational education has been considered to be second-rate education in these schools. Also, vocational courses must have an employment objective. If this is true, then two alternatives must be met to meet the needs of the Indian population: either the Indian must leave the reservation for employment or industry must locate on the reservation.

The division of vocational education has given leadership in the development of programs whenever possible and when it has been requested.

h. Construction and Equipment

Area school construction in the following years:
1965—$300,000 Federal and $300,000 local funds.
1966—$600,000 Federal and $600,000 local funds.
1967—$415,000 Federal and $415,000 local funds.
1968—$133,050 Federal and $133,050 local funds.
1969—$80,000 Federal and $80,000 local funds.

1970, 1971, and 1972 had no allocation for construction. Projected construction expenditures for fiscal year 1974 include $500,000 Federal funds and $500,000 local funds (exhibit E).

Equipment—The following is a breakdown of expenditures from Federal, State, and local funds. It includes carryover.

	Federal	State	Local
1963	$283	(1)	(1)
1964	16,032	(2)	(2)
1965	30,097	(3)	(3)
1966	64,740	$26,096	$77,599
1967	302,342	153,714	148,617
1968	277,308	129,466	147,843
1969	112,178	38,195	73,980
1970	167,343	45,525	172,326
1971	170,839	41,010	129,958
1972	192,333	54,909	161,742

[1] State and local $283.
[2] State and local $16,032.
[3] State and local $30,096.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

South Dakota has attempted to use the money allocated to the State for exemplary projects in such a manner that such an impact would be made that legislation might follow. This was done by supporting 12 secondary schools from 9 districts in a multidistrict busing effort.

This project was successful and stimulated enough interest statewide that the State board of vocational education authorized a feasibility study to be done.

The results of the feasibility study were disseminated statewide by means of 14 public meetings. At these meetings a questionnaire was circulated to get input for legislation from the public. As a result of this study and planning, legislation was drafted to organize multidistricts for vocational education, and a transportation bill. This legislation passed unanimously and will become law July 1, 1973.

b. Residential Vocational Education

Does not apply at this time.

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CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	7,388	9,741	39	12,560	[illegible]	348	261	80	28
Adult	654	787	133	618	[illegible]	0	520	35	
Total	8,042	10,528	172	13,178	[illegible]	348	781	113	34

1977 PROJECTED

	Part F—Consumer homemaking			Part B—Occupational Home Economics		
	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	13,310	1,100	210	32[illegible]	60	15
Adult	700			43[illegible]	30	2
Total	14,010	1,100	210	757	90	17

Note.—The consumer education concept is being integrated into all units taught in the comprehensive homemaking program. In the economically depressed areas we show a 20 percent increase in family life courses and a 25 percent increase in boys enrolled in consumer homemaking classes.

d. Cooperative Vocational Education

In 1963, prior to the passage of the Vocational Education Act of 1963, cooperative education had 132 students enrolled in seven programs, all classified as distributive education. With the passage of the 1963 Vocational Education Act, this grew in 1968 to 18 programs enrolling 427 students. After passage of the 1968 amendments, part G—Cooperative education, a new growth was possible and by 1972, there were a total of 55 programs serving 1,450 high school postsecondary students.

In 1972, 34 of these programs were funded from part G and enrolled 688 students. (Nine of these were special programs designed for the disadvantaged student and had an enrollment of 141.) Three postsecondary programs enrolling 80 students were also funded with cooperative part G funds.

Projections for 1977 would show a continued growth to where we would serve a total of approximately 2,000 students in 70 secondary and postsecondary programs. It is anticipated that most or all of these new programs would be funded under part G. The establishment of the planned multidistrict centers in South Dakota could make these projections quite modest. The above figures do not include any enrollments in adult education, as none of these are funded through part G of the act.

Grants of part G moneys, based on actual expenditures, were made to fund an exemplory program in Watertown, the Watertown Multi-District Career Center, and the instructional materials lab in Sioux Falls. Students in the exemplary program and the multidistrict were counted in the program totals listed above.

e. Work Study Programs

The work-study programs have utilized all available moneys allowed to South Dakota. There are times we could have utilized more funds. Moneys expended include:

	Federal	State/ local fund
1963	0	0
1968	$1,675	$559
1972	29,729	7,664
1977	35,000	10,000

Note.—Enrollments for 1963—0; 1968—27; 1972—158; and projected enrollment for 1977 is 300 students.

The money provided for work-study programs has afforded an excellent opportunity to provide work experience for the handicapped and disadvantaged that are enrolled in special vocational programs.

f. Research and Training

Part C funds have been used for two purposes in South Dakota:

(1) To provide for a statewide manpower needs and job opportunity study and to continue to update statistics for planning purposes; and

(2) To provide the feasibility study for multi-district secondary vocational education in South Dakota.

4. *State Advisory Council.*—The most significant contribution the State Advisory Council has made was an extensive public information program they launched statewide in an effort to change the image of vocational education. This was done through mass media and public information meetings. Special invitations were sent to users of the product of the area schools. A great deal of valuable information was received and has been utilized in our planning.

Actions which the State board has taken as a result of advisory council recommendations:

(1) Provided for more published materials explaining vocational education and the offerings of the area schools;

(2) More radio and television publicity;

(3) Placed more emphasis on occupational counseling. Implemented the VIEW program (microfilming of occupational information).

(4) Strengthened secondary vocational education by promoting the multidistrict concept.

5. *Summary and Recommendations.*—The program of vocational education in South Dakota has developed in conformity with the provisions of the Smith-Hughes Act, 64th Congress, approved February 23, 1917, as a cooperative enterprise between the States and the Federal Government.[1]

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[1] U.S. Office of Education, Vocational Education Bulletin No. 1, Statement of Policies for the Administration of Vocational Education.

It is obvious in our State, and I'm sure South Dakota is not different from the other 49 States, that if vocational education is going to be effective the Federal Government will have to play a major role as a partner. This type of education is much too expensive for any State to carry the full burden.

The needs for the program shall be determined at the local and State level based upon accurate manpower needs and job opportunity studies.

The funds should be appropriated to the States to meet the six purposes of the Vocational Education Act of 1963. This act should have never been amended in 1968.

The weakness of vocational education today has come forth primarily because of the erosion and the "watering down" of the leadership at the national level. Key positions have been eliminated or staffed by personnel who are not qualified to administer vocational education. This same problem has filtered down to the region and the State.

Junior colleges, community colleges, and private schools continuously enforce the academic accreditation standards upon the vocational programs. These standards are neither relevant nor applicable. I believe it is evident at this time that South Dakota has not experienced these pressures.

Finance has been the major obstacle; however, we are pleased with the growth within the resources which have been available. We have many fears as to what is happening at the national level.

The following are recommendations which I believe would strengthen vocational education in South Dakota and, in the end result, provide for the welfare of the nation:

(1) Revert to the full implementation of Public Law 88-210, the Vocational Education Act of 1963.

(2) Provide for full funding of Public Law 88-210.

(3) Include manpower development and training in vocational education.

(4) Provide for State advisory councils to be appointed by the State board for vocational education.

(5) Provide for full staffing of the Bureau of Adult and Vocational Education with qualified personnel who have had the proper education and experience at the local and State level.

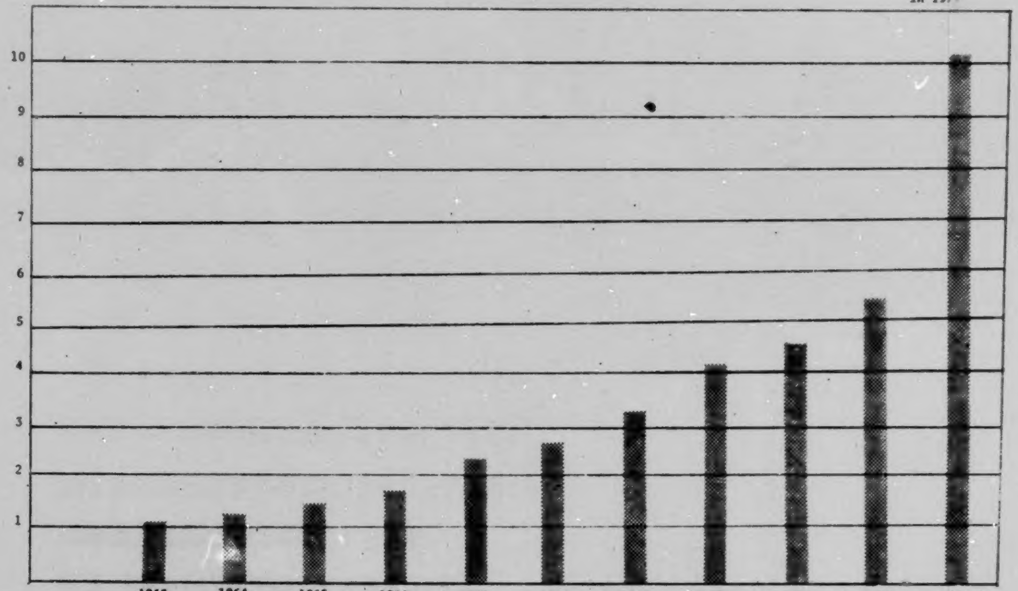
(6) Require full accountability of all programs and expenditures.

(7) Oppose special revenue sharing for vocational education.

(8) Make provisions for student learners in cooperative education to be employed at a learners' wage.

TOTAL EXPENDITURES for Vocational Education, excluding Construction,
All Acts and Matching Funds -- South Dakota in millions

*projected in 1977



	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1977 *
Federal	342,054	369,324	405,847	479,740	906,866	1,157,369	1,232,677	1,259,071	1,802,130	2,134,896	4,106,472
State & Local	763,273	856,932	920,475	1,198,748	1,496,254	1,627,272	2,028,767	2,791,244	2,852,154	3,309,822	5,965,954
Total	1,105,327	1,226,256	1,326,322	1,678,488	2,403,120	2,784,641	3,261,444	4,050,315	4,654,284	5,444,718	10,072,426

EXHIBIT A

ENROLLMENT in Vocational Education Classes in South Dakota
by LEVEL OF PROGRAM

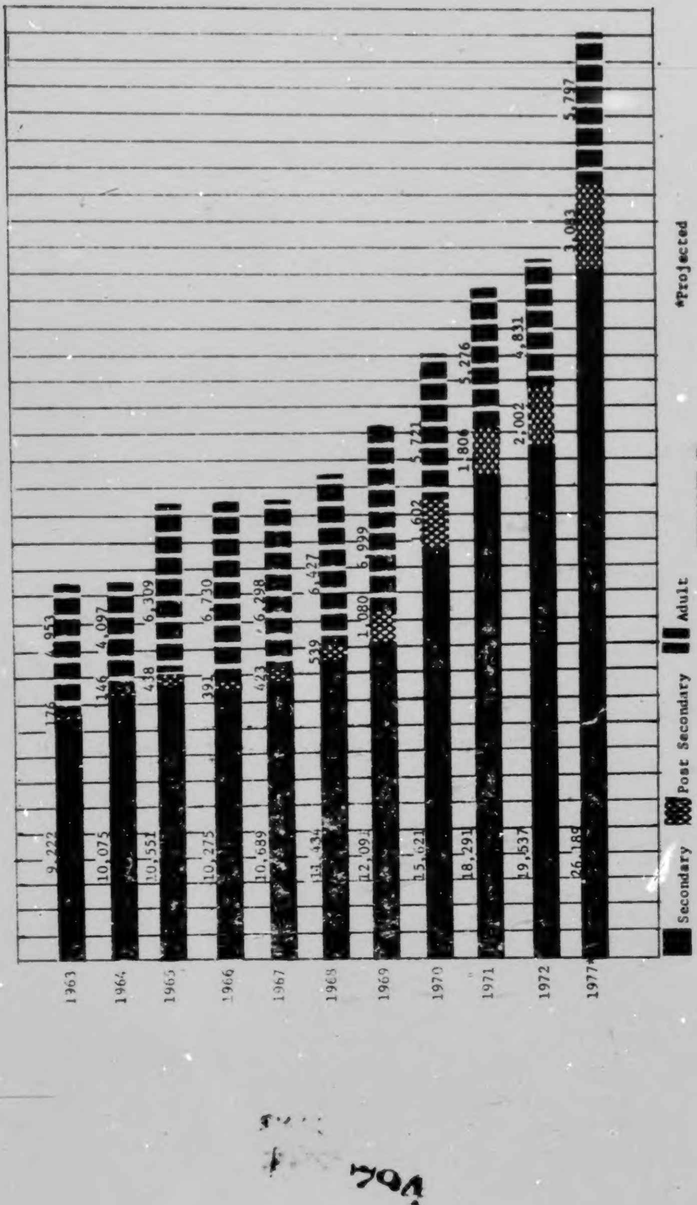


EXHIBIT B

POST SECONDARY

Mitchell

AGRICULTURE
- *Agricultural Marketing & Management

HEALTH OCCUPATIONS
- *Licensed Practical Nursing
- *Medical Laboratory Assistant

OFFICE EDUCATION
- *Accounting
- *Secretarial
- *Secretarial Accounting
- *Stenographic
- *Stenographic Accounting

TRADE & TECHNICAL
- *Architectural Drafting & Building Construc.
- *Automotive & Diesel Mechanic
- *Baking
- *Chef Training
- *Electrical Construc. & Maintenance
- *Electronics Comm.
- *Production Welding

Rapid City

HEALTH OCCUPATIONS
- *Licensed Practical Nursing

TRADE & TECHNICAL
- *Auto Body Repair
- *Automotive Maintenance
- *Building Design & Construction
- *Electronics Comm.
- *Production Welding

Sioux Falls

DISTRIBUTIVE EDUCATION
- *Retail Management

HEALTH OCCUPATIONS
- *Licensed Practical Nursing

OFFICE EDUCATION
- *Data Processing

TRADE & TECHNICAL
- *Automotive Maintenance
- *Electronics Communication
- *Industrial Drafting
- *Diesel Mechanics
- *Major Appliance & Regrigeration

Sturgis

OFFICE EDUCATION
- *Secretarial

TRADE & TECHNICAL
- *Building Design & Construction
- *Electronics Comm.

Watertown

AGRICULTURE
- *Agri-Business
- *Agriculture Maintenance & Management

HEALTH OCCUPATIONS
- *Certified Lab. Ass't
- *Dental Assistant
- *Dental Lab. Tech.
- *Licensed Practical Nursing
- *Medical Assistant
- *Radiological Technology
- *Child Care Specialist

TRADE & TECHNICAL
- *Automotive Maintenance
- *Aviation Mechanics
- *Building Design & Construction
- *Cosmetology
- *Farm Equipment & Diesel Mechanics
- *Industrial Drafting
- *Industrial Electronics
- *Machine Shop
- *Radio & T.V. Servicing

USD/Springfield

OFFICE EDUCATION
- *Secretarial

TRADE & TECHNICAL
- *Auto Body Repair
- *Automotive Maintenance
- *Building Design and Construction
- *Electronics Comm.
- *Industrial Electronics
- *Machine Shop
- *Diesel & Power Control
- *Architectural Drafting
- *Mechanical Drafting
- *Electronics Servicing

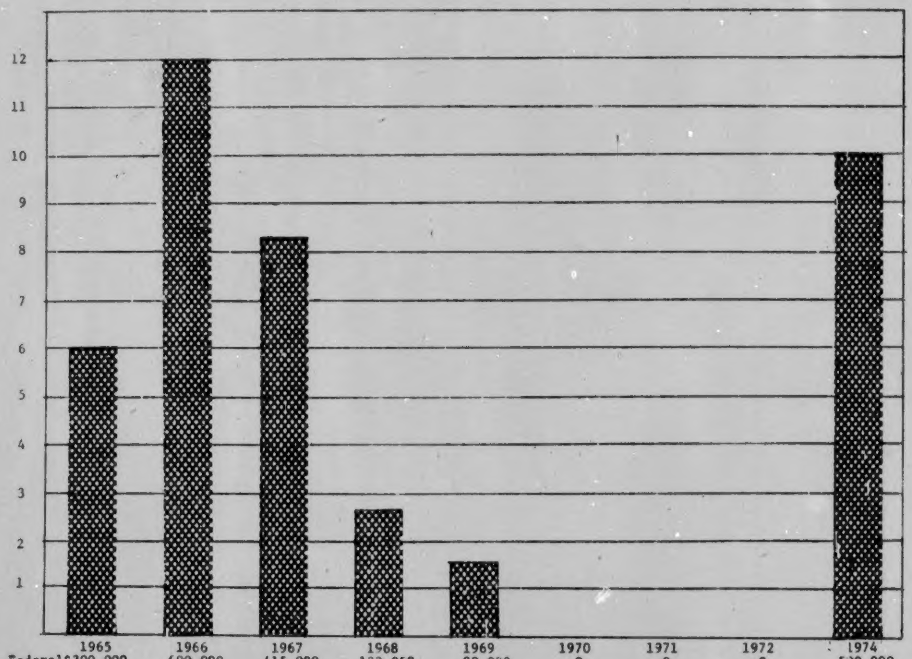
EXHIBIT C.

REIMBURSEMENT PERCENTAGES - FISCAL YEAR 1972

ABERDEEN	44.88	ELKTON	41.08	LENNOX	41.08	ROSLYN	41.83
AGAR	39.56	ELLSWORTH AFB	48.68	LEOLA	39.56	SALEM	34.23
ALCESTER	33.47	ESTELLINE	41.83	LETCHER	42.60	SCOTLAND	34.99
ALEXANDRIA	31.95	EUREKA	31.20	MADISON	41.83	SELBY	36.51
ALPENA	40.85	FAITH	46.40	MARION	38.04	SIOUX FALLS	47.17
ARLINGTON	39.56	FAULKTON	36.51	MARTIN	34.99	SISSETON	55.53
ARMOUR	39.56	FLANDREAU	42.60	McINTOSH	47.17	SPEARFISH	40.32
BALTIC	38.80	FREDERICK	40.53	McLAUGHLIN	49.45	SPRINGFIELD	40.53
BELLE FOURCHE	49.45	FREEMAN	27.38	MELLETTE	42.60	STURGIS	38.04
BERESFORD	38.80	GARRETSON	43.36	MENNO	33.48	TRI COUNTY	41.08
BISON	24.35	GEDDES	35.75	MILBANK	43.36	TRIPP	35.75
BRANDON	38.04	GETTYSBURG	47.92	MILLER	39.56	TRI VALLEY	36.51
BRISTOL	31.95	GREGORY	37.27	MISSION	51.73	TULARE	30.42
BRITTON	40.32	GROTON	31.95	MITCHELL	39.56	TYNDALL	46.40
BROOKINGS	41.08	HARRISBURG	48.68	MOBRIDGE	50.20	VERMILLION	37.27
BURKE	40.32	HARTFORD	44.11	MONTROSE	41.83	VIBORG	34.99
CANISTOTA	29.66	HIGHMORE	38.04	NEW EFFINGTON	47.92	VOLGA	47.17
CANTON	49.45	HITCHCOCK	31.95	NEWELL	34.23	WAGNER	50.97
CASTLEWOOD	45.65	HOT SPRINGS	50.20	NEW UNDERWOOD	49.45	WALL	40.32
CENTERVILLE	30.42	HOVEN	25.11	PARKER	41.08	WARNER	36.51
CHAMBERLAIN	40.32	HOWARD	38.04	PARKSTON	34.99	WATERTOWN	43.36
CHESTER AREA	39.56	HUDSON	41.83	PHILIP	47.92	WAUBAY	50.97
CLARK	38.80	HURLEY	40.53	PIERRE	45.65	WEBSTER	44.11
CLEAR LAKE	44.88	HURON	45.65	PINE RIDGE	50.97	WESSINGTON	38.80
COLMAN	37.27	IPSWICH	38.80	PLANKINTON	34.99	WESS. SPRINGS	40.32
CONDE	27.38	IROQUOIS	40.53	PLATTE	48.68	WHITE	41.08
CUSTER	34.23	KADOKA	41.83	POLLOCK	32.71	WILLOW LAKE	37.27
DELL RAPIDS	38.04	KIMBALL	29.66	RAPID CITY	49.44	WILMOT	50.20
DE SMET	44.12	LAKE ANDES	46.40	REDFIELD	41.08	WINNER	46.40
DOLAND	32.71	LAKE PRESTON	35.75	ROSCOE	35.75	WOLSEY	42.60
EGAN	44.88	LEAD	46.40	ROSHOLT	41.08	YANKTON	43.36
ELK POINT	43.36	LEMMON	38.80				

EXHIBIT D

TOTAL EXPENDITURES FOR CONSTRUCTION OF AREA SCHOOLS in hundred thousands



	1965	1966	1967	1968	1969	1970	1971	1972	1974
Federal	$300,000	600,000	415,000	133,050	80,000	-0-	-0-	-0-	500,000
Local	300,000	600,000	415,000	133,050	80,000	-0-	-0-	-0-	500,000
Total	600,000	1,200,000	830,000	266,100	160,000	-0-	-0-	-0-	1,000,000

EXHIBIT E (1)

TENNESSEE

State Director—W. M. Harrison

INTRODUCTION

There has been a steady increase in enrollment in vocational education since the passage of the Vocational Education Act of 1963. Enrollment at all levels, 1963–72, has increased by 41 percent, from 108,236, to 152,761.

Enrollments by 5-year periods including projection for 1977 include:

Year:	*Total enrollment*
1963	108,236
1968	128,867
1972	152,761
1977 (projected)	200,576

PUBLIC LAW 90–576, PART B—STATE VOCATIONAL EDUCATION PROGRAMS

a. Job Training Enrollments

	1963	1968	1972	1977 (projections)
Secondary:				
Agriculture	21,133	22,571	20,087	22,867
Distribution	644	2,688	5,224	7,892
Health	0	224	76	112
Home economics	0	509	1,301	1,961
Office	0	4,149	6,563	7,543
Technical	427	345	911	1,370
Trades and industry	8,575	11,109	15,375	32,132
Total	30,829	41,595	49,537	73,877
Postsecondary:				
Agriculture	0	12	150	500
Distribution	0	30	100	144
Health	1,437	2,855	3,148	4,555
Technical	352	1,044	2,406	3,480
Trades and industry	0	3,011	6,873	9,947
Total	1,789	8,101	17,773	24,723
Adult:				
Agriculture	3,486	2,380	751	1,929
Distribution	3,083	2,525	2,595	4,944
Health	0	549	473	2,898
Home economics	0	337	998	2,140
Office	0	4,099	8,335	6,304
Technical	915	1,251	1,969	1,457
Trades and industry	6,813	15,542	19,321	23,304
Total	14,297	26,683	34,442	42,976
Grand total	46,915	76,379	101,752	141,576

b. General Description:

During the past 10 years job training programs at the secondary levels have been established in instructional areas of health, home economics and office occupations. Total enrollment in job training programs at secondary level has increased from 30,829 in 1963 to 49,537 in 1972.

During this period the postsecondary enrollment has increased from 1,789 to 17,773. This growth is a result of the opening of area vocational-technical schools, technical institutes and community colleges since 1963.

In 1963 there were no training programs for adults in the areas of health, home economics and office occupations. By 1972 enrollments in these areas were: Health 473, home economics 998, office 8,335.

c. Postsecondary Courses:

There were no State operated postsecondary programs in 1963; however, 1,789 persons were enrolled in postsecondary programs which were contracted to local boards of education.

The first area vocational-technical school opened in 1964 and the first technical institute operated in 1965. By 1972, there were 27 area schools and 3 technical institutes.

Enrollment in postsecondary vocational programs is reported and projected as follows:

	1963	[1] 1968	1972	1977 (projected)
Community colleges	0	192	3, 025	4, 378
AVTS	0	3, 104	10, 175	14, 730
Technical institutes	0	850	3, 385	4, 897
Contract with LEA	1, 789	3, 955	1, 188	1, 817
Total	1, 789	8, 101	17, 773	25, 723

[1] Estimated.

d. Disadvantaged Students

	1968	1972	1977
Special needs	1, 138	32, 498	0
Disadvantaged	0	18, 040	27, 036

Purpose.—To increase the schools holding power of the vocational students in school programs which will enable him to meet his occupational objectives and awareness to the world of work. The vocational disadvantaged programs are increasing in demand each year as school administrators realize the value of this program in the prevention of dropouts by giving these students programs at their level to meet their needs. All students are assessed to determine their level and the instruction is given on an individual basis at their level. Progress in this program averages above one grade level per year.

This program is the salvation for the student that got behind in his early school days due to educational, cultural or socioeconomic conditions.

We have requests for approximately 30 new programs this year.

e. Handicapped Students

Handicapped:

1968	0
1972	3, 804
1977	3, 025

The handicapped program for vocational training has increased from 0 programs in 1968 to 15 in 1972. These programs consist of basic and occupational training. This has been a very successful program due to its operation. Students are assessed and placed in classes on an individual learning basis. The instructors start them at their level and give them instruction to meet their needs, practically all the students show progress. Of those completing their program approximately 90 percent are placed on jobs.

Placement coordinators are used to assist with the training program and placement on cooperative jobs or permanent employment.

f. Adults

	1963	1968	1972	1977 (projected)
Unemployed, in need of job training (preparatory)	541	5, 905	10, 314	12, 867
Employed, in need of job training (supplementary)	13, 756	20, 778	24, 128	30, 109
Total	14, 297	26, 683	34, 442	42, 976

g. Financing

(i) The State plan specifies that the following criteria for distribution of part B funds shall be used: (1) manpower needs and job opportunities, (2) vocational education needs, (3) relative ability to pay, and (4) relative costs of programs, services and activities. Federal funds will be allocated to local educational agencies in a manner which will result in at least $1 of each State and/or local funds being expended for each dollar of Federal funds expended under the State plan for vocational education programs, services and activities under part B, but not in a manner which requires local educational agencies to match Federal funds at a percentage rates uniform throughout the State.

(ii) The table below shows the breakdown on the dollar amounts and percentages of Federal and State funds going to Memphis, the only city in Tennessee with population in excess of 250,000 and shows how this allocation compares with its relative percentage of State's population, and a similar breakdown and relationship for the poorest rural areas of the State.

	Federal		State		Population	
	Funds allocated	Percent of State	Funds allocated	Percent of State	Total	Percent of State
State total	$9, 474, 245		$14, 305, 059		3, 923, 687	
Memphis [1]	1, 050, 808	11. 08	2, 016, 153	14. 09	623, 530	15. 89
Poorest rural areas [2]	1, 520, 758	16. 05	1, 684, 273	11. 77	801, 557	20. 42

[1] City with over 250,000.

[2] Composite of 46 countries designated "depressed" in 1972 State plan.

h. Construction and Equipment

Facilities for conducting vocational-technical education programs at the secondary level have been steadily improved through new construction, remodeling, and addition of equipment. The amount of local funds expended for these purposes is not available since the expenditure of such funds is not reported to the State office.

Postsecondary facilities constructed since 1963 for conducting vocational-technical education programs include 27 area vocational-technical schools and 3 technical institutes. In addition there is one or more vocational programs in each of the nine community colleges which have been constructed since 1963.

The following table lists investments for construction and equipment from Federal, State, and local sources:

EXPENDITURES

	Total	Federal	State	Local
1963	(1)	(1)	(1)	(1)
1964	(1)	(1)	(1)	(1)
1965	2,550,878	1,275,439	875,439	400,000
1966	4,268,122	2,021,177	2,246,945	0
1967	1,750,000	875,000	675,000	200,000
1968	1,195,000	[2] 914,000	281,000	0
1963-68 total	9,764,000	[2] 5,085,616	4,078,384	600,000
1969	3,053,026	[2] 1,938,362	59,358	1,055,306
1970	5,883,462	[2] 3,886,517	1,996,945	
1971	4,820,240	[2] 3,220,777	1,599,463	
1972	8,997,915	[2] 5,685,291	3,312,624	
1969-72 total	22,754,643	[2] 14,730,947	8,023,696	
1973-77	12,366,767	[2] 1,220,600	11,146,167	

[1] Not available.
[2] Includes ARC funds.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs

1968	0
1972	12,461
1977	18,210

Tennessee has two exemplary projects for K-12, one located in Knox County and the other in Memphis. These projects were designed to develop a total education program for these systems. Vocational education has made unusual progress in Tennessee as the result of these two programs. Many systems in the State are requesting vocational leadership in the development of career education programs.

Tennessee has used the experience and know-how learned in the exemplary programs to establish two model career programs. These models have developed expertise to assist other programs in the State and Nation.

Guides for teachers have been developed. A good start in a new program is almost assured provided a preservice workshop for the teachers is conducted.

These programs have made vocational education in Tennessee the leaders.

b. Residential Vocational Education

There are no programs under this part in Tennessee.

c. Consumer Homemaking and Occupational Home Economics

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	45,000	44,652	509	46,958			1,301		
Adult	16,565	7,284	337	4,030			998		
Total	61,569	51,936	887	50,988	12,316	1,738	2,461	865	446

The development of consumer education guides in summer graduate classes in four universities in 1969–70 provided aids and impetus in adding emphasis to consumer education and family life in home economics instruction at both secondary and adult levels. Consumer education concepts in all areas of homemaking and greater emphasis in areas of human development and nutrition, career orientation, and management have resulted following the vocational education Act of 1963.

Instruction in home economics programs for gainful employment have included consumer education and concepts of self-improvement and family life.

d. Cooperative Vocational Education

Type "G" cooperative programs

1968	0
1972	1,320
1977	2,268

There are 47 type "G" programs in the State. This is a cooperative program designed for disadvantaged students. These students are assessed for eligibility.

Each cooperative program has a minimum of 30 students with a teacher-coordinator responsible for the program. Each co-op laboratory has been well equipped for maximum related instruction.

The coordinators work with the employers by developing a job of program are on the increase.

e. Work-Study Programs

1968	2,380
1972	1,176
1977	1,408

Work study is designed to furnish vocational students or those planning to enroll in vocational courses an opportunity to earn some money by working for the school or some government agency. The purpose of this program is to assist eligible students to earn some money in order to stay in school or return to school.

School administrators favor this program over the other programs of this design because it helps the needy students stay in school and is locally administered.

The funds for work study needs to be increased by 500 percent provided school systems can initiate the program by September 1. Many school administrators contend students began to get short of money after school has been in session 2 months.

f. Research and Training

The Tennessee Research Coordinating Unit for Vocational Education, having the major responsibility for developing and coordinating vocational education research in the State, is operated as an integral part of the Department of Vocational-Technical Education at the University of Tennessee, Knoxville. The RCU is funded on a contract basis each fiscal year after a program of activities is developed jointly with the State Division of Vocational-Technical Education. Funding is shared approximately 75 percent with State and Federal funds and 25 percent with University funds. Some specific projects are funded by other agencies such as the State Advisory Council on Vocational Education and the Tennessee Valley Authority.

The basic objectives of the Tennessee RCU are:

1. To collect and disseminate—to appropriate audiences—information on progress and application of occupational research.
2. To stimulate and encourage occupational education research and to develop research activities in State departments, colleges and universities, local school districts, and nonprofit educational organizations.
3. To coordinate occupational education research activities conducted by State departments, colleges and universities, local school districts, and nonprofit educational organizations.
4. To conduct occupational education research and development projects.

As a result of research and development activities, national, regional and State trends, advisory committee recommendations, and statewide conferences, the following research and development priorities (in descending order) have been established:

1. The development of information systems (document and data based).
2. Vocational-technical curriculum development.
3. Individualized instruction.
4. Guidance and counseling.
5. Teacher education.

Most of the RCU activities, including minigrants, have been focused on these priorities.

To facilitate retrieval, dissemination, and consumption of research and research-related information, three regional research and development offices were established in July 1971. In addition to operating as strategic contact points for referrals and requests, the regional research and development coordinators provide valuable technical assistance in the writing of research proposals, conducting small research projects, and analyzing and utilizing packaged information such as manual and computer searches of ERIC and other information systems.

Since October of 1970, 13 cooperating institutions have served as "Regional Resource Centers" where individuals could use the necessary indexes, view microfiche on a reader or reader-printer, and printout pages as necessary. Presently, two PRC's are located in secondary schools, three in State technical institutes, seven in area vocational schools, and one is in a community college. Workshops for regional resource centers are held regularly in November and May as a means of keeping the individuals involved up-to-date on both RCU activities and current trends in information needs throughout the State. PRC personnel serve voluntarily as liaison between their institution and the school, and are supplied with 1,500 free microfiche and a reader-printer.

The information retrieval and dissemination system for vocational education, first established in July of 1970, has its central data base in the college of education at the University of Tennessee in Knoxville. Dissemination of library materials is supported and facilitated by both regional resource center representatives, where files are individually organized and maintained, and regional research and development offices, which are linked by a teletype system (Jackson, Murfreesboro, Knoxville).

The "Query" computerized retrieval system continues to be used with access to the UT Computing Center. Increased emphasis has been placed on maximum utilization of already completed computer searches by the printing and dissemination of the Index to Query Computer Searches, with updates added to it every three months.

The RCU continues to publish and disseminate the RCU Circulator. This monthly newsletter has proven to be a valuable feedback mechanism from readers and, as of February 1973, is mailed to approximately 4,500 persons bimonthly from September through May. The mailing list has expanded from the original total of 2,600 in 1970 to the above mentioned total by individual and group requests.

At the RCU offices in Knoxville, four reader-printers are available and four portable readers are on hand for overnight checkout. In addition, one microfiche reproducer and a Xerox (for manual searching) are also located in the same building with the library containing the complete ERIC microfiche collection. Several other departments on the University of Tennessee, Knoxville, campus have purchased portable readers for private use and campus libraries and librarians cooperate by both giving and receiving referrals. This same working relationship is being developed with many other college and university libraries throughout the State.

Selective Dissemination of Information Subsystem

The Tennessee Selective Dissemination of Information Sub-System for Area vocational schools, State technical institutes, community colleges, and secondary schools was first initiated in September of 1972.

Using the 1972 Directory of Personnel in Vocational Education in Tennessee, a faculty profile was constructed for each school, listing the total number of teachers in each vocational instructional area.

The profile serves as a key for assembling the SDI package for each school. The package provides individual teachers with sample listings of available materials in specific instructional areas on a regular basis. In addition, the superintendent and/or principal was given an opportunity to both update the faculty profile for his school, designate a contact person who would always be responsible for distributing the SDI sheets to the appropriate teachers, and request a mimeographed review of readers and reader-printers presently available.

It is hoped that the SDI sub-system will both serve as a means of informing Tennessee vocational instructional personnel of the kinds of instructional materials available from the RCU and also encourage the use of the 13 regional resource centers scattered throughout the State.

During the fiscal year 1972-73, the SDI sub-system was organized so that materials for secondary schools and those for postsecondary schools would be mailed on alternate months from October through May. The following schedule was developed to assist in meeting the mailing deadlines:

September: Postsecondary No. 1.
October: Secondary No. 1.
November: Postsecondary No. 2.
(None in December)
January: Secondary No. 2.
February: Postsecondary No. 3.
March: Secondary No. 3.
April: Postsecondary No. 4.
May: Secondary No. 4.

In many cases, documents from the AIM indexes on topics such as cosmetology and cooperative education were limited. The Tennessee RCU/SDI sub-system has, therefore, proven to be a valuable checkpoint for the types of documents that are scarce in the FT clearinghouse files and has put the information specialist in a position to be able to make recommendations for greater emphasis by the clearinghouse in the instructional areas for which there is both a demand and little supply throughout the State of Tennessee.

Plans for 1973-74 are to prepare SDI materials on a quarterly basis as new AIM indexes are received.

Project INFOE

Project INFOE (information needed for occupational entry) was developed and implemented during fiscal year 1972 and fiscal year 1973. This program parallels VIEW programs in other States. The purpose of INFOE is to develop and disseminate career information for use by students in grades 7 through 14.

An INFOEscript format which provides for general career information on three pages and for specific information pertinent to the locale on the fourth page. In localizing information for the fourth page, data were obtained from local offices of the Tennessee State Employment Service, regional vocational education supervisors, State area vocational-technical schools, State technical institutes, State community colleges, and from businesses and industries. Content for the first three pages of general information is adapted from existing guidance materials. After being validated for use in Tennessee, the four pages were photographed and reproduced on aperture cards.

Activities completed to date include:

1. Pilot test of an INFOE deck of cards consisting of information on 200 job titles in 89 schools in Tennessee during spring, 1972.

2. Dissemination of INFOE decks consisting of information on 400 job titles in 180 schools during fall, 1972.

3. Development of an INFOE institution deck consisting of cards containing information which describes all postsecondary institutions in Tennessee and selected institutions outside of the State. (March, 1973)

4. Development of an INFOE program offering decks of cards containing information which describes all the vocational and technology programs offered in Tennessee. (March, 1973)

Elementary INFOE

The Tennessee research coordinating unit in cooperation with the Tennessee Valley Authority is developing a career information system for students in grades 4, 5, and 6. The system, called elementary INFOE (information needed for occupational exploration), is designed to provide students with basic information on career clusters as well as general information on specific job titles. The key to INFOE is in INFOEscript reproduced on a microfilm aperture card. Twenty INFOEscripts will be developed for each of the 15 career clusters identified by U.S. Office of Education.

One INFOEscript for each cluster will consist of an introduction and an overview of the careers contained in the cluster. In addition, 19 scripts for each cluster will contain general information on specific job titles.

Specific objectives are:

1. To develop 300 microfilm aperture cards containing career information on 15 career clusters for use by 4th, 5th, and 6th grade students.

2. To pilot test the INFOE materials in a total of 30 elementary classrooms selected from schools in the following states: Alabama, Georgia, Mississippi, North Carolina, and Tennessee.

3. To provide inservice training and printed guides on the use of the INFOE materials to teachers and students in the pilot test schools.

SUMMARY

In summary, the net effects of the functions performed in research in the State of Tennessee have had a direct positive effect on bringing about change in vocational-technical programs at the local level. In addition, indirectly the effects of the research program have made an important contribution by providing a data bank as a statewide resource for planning and development.

(4) *State advisory council.*—Major recommendations and responses for the past 3 years are as follows:

1. The council recommended that more attention be given to developing appropriate programs for elementary students which

provide the opportunity to learn the world of work and have "hands on" experiences with occupational skills. Such programs should be carefully evaluated with wide sharing of information concerning successes and weaknesses.

Response.—Several exemplary and career education projects are currently in operation, each providing "hands on" experiences with occupational skills for elementary students. Each program approaches the problem in a different way. Evaluations of these projects are currently in process. Since most of the programs are relatively new, little information about their strengths and weaknesses has been determined and disseminated. Some information concerning the operation of the programs, however, has been disseminated.

2. The council recommended that coordination of effort and articulation at all levels be increased among secondary, postsecondary and adult education agencies to avoid costly duplication of programs and to permit intelligent study and consideration of the direction vocational-technical education is taking in terms of where it should be headed. This framework should allow for: (a) Flexibility necessary to recognize differences in local situations, (b) full recognition of the expanded programs in technical education at all levels of operation, (c) initiative to attempt new approaches with new linkages.

Response.—A statewide conference on management by objectives was conducted to explore and set forth objectives for the total program of vocational-technical education. Personnel from local schools, area vocational-technical schools, technical institutes, community colleges, State staff of vocational education, and representatives of the universities participated in the conference.

The development of curriculum material involving several services was pursued during the year which involved education institutions from the junior high level through the university in order to insure an articulated program eliminating duplication of efforts among the various levels of vocational-technical education. During the reporting period programs were made at all levels through cooperative planning for programs that are being pursued and planned to determine better ways of training for occupational entry.

3. Efforts should be continued to broaden the base of program offerings available to students. Although progress is indicated programs should be identified with actual job opportunities of anticipated job placement.

Response.—The process of local planning is bringing about an awareness to local school officials that job opportunities and training programs must be compatable. The data required in local plan applications demands an involvement by local businessmen, industrialists, labor representatives, lay people, educators, agriculturists, and others. This type of resource is most valuable in planning local programs to meet employment needs of the community being served.

4. Strong emphasis should be placed on developing new programs specifically for the disadvantaged without consideration for redirecting existing programs that serve the general vocational student population.

Response.—Emphasis continues to be placed on the development of vocational basic education remedial programs for those disadvantaged students enrolled in vocational education and having need for this type service. The purpose is to supplement the students' ability to insure progress and success toward his vocational objective. Skill centers including complete programs for the disadvantaged are being added in locations having facilities, local supervision and financial support available.

5. In light of the high priority placed on career education, the council recommends that plans be formulated by the Division of Vocational-Technical Education for implementation of this concept within the bounds of funds and other available resources.

Response.—In these programs, emphasis has been placed on career education. At the completion of the first year, the same school systems begin development of model programs in career education. Movement into expanded career education programs will require redirecting funds from on-going programs or the use of additional appropriations. Vocational education is only one facet of career education, and, therefore, should be expanded along with all other phases of the public education system. It is felt that progress has been made within the bounds of funds and other available resources.

In-service training programs have been held for vocational teachers and local administrators. These were aimed at making teachers, supervisors, and administrators aware of the career education concept, as well as procedures in implement the vocational phase of the program.

TEXAS

State Director—John R. Guemple

INTRODUCTION

Vocational education in Texas is dedicated to preparing students for employment in an increasingly industrialized, technical society. Over the years vocational education has been modified and revised to meet the needs of a changing economy, and programs have been initiated and expanded to accommodate an increasing number of students enrolled in vocational education. The overall growth of vocational education enrollments since fiscal year 1963 is shown in the following table:

TABLE I.—*Total vocational education enrollments*

Fiscal year:	
1963	416, 561
1968	586, 455
1972	647, 879
1977 (projected)	964, 589

PUBLIC LAW 90–576, "PART B"—STATE VOCATIONAL EDUCATION PROGRAMS

This section presents statistical data which reflects the uses of the basic State grants provided under part B of the act.

a. Table II presents vocational education enrollment figures for all persons in programs supported with funds made available under part B of the act.

TABLE II.—VOCATIONAL EDUCATION ENROLLMENTS

	Secondary	Post-secondary	Adult
	Fiscal year 1963		
01	46, 603	0	101, 627
04	5, 764	56	29, 319
07	0	0	3, 744
09. 02	0	0	0
14	0	0	0
16	214	5, 567	2, 568
17	12, 334	350	30, 800
Total	64, 915	5, 973	168, 058
	Fiscal year 1968		
01	49, 133	36	203, 410
04	10, 488	949	30, 905
07	1, 505	5, 664	613
09. 02	504	150	0
14	4, 945	4, 943	2, 268
16	1, 067	15, 601	2, 000
17	22, 335	4, 342	28, 660
Total	89, 977	31, 685	267, 856
	Fiscal year 1972		
01	56, 729	767	91, 076
04	16, 507	3, 080	21, 200
07	23, 395	10, 366	4, 141
09. 02	7, 977	414	758
14	13, 974	13, 983	14, 395
16	17	7, 293	1, 615
17	43, 693	15, 751	23, 318
Total	161, 892	51, 654	156, 503
	Fiscal year 1977 (projected)		
01	61, 273	1, 205	86, 497
04	22, 950	4, 624	57, 337
07	4, 962	16, 521	7, 003
09. 02	14, 949	1, 902	1, 910
14	24, 067	22, 432	23, 887
16	650	11, 236	2, 425
17	75, 975	25, 999	39, 427
Total	204, 826	83, 919	218, 486

b. General description

As shown in the preceding tables, vocational education enrollments in fiscal year 1963 were limited to agriculture, distribution, and industrial education. A small number of students were enrolled in technical education programs. Following the implementation of the provisions of the 1963 act, vocational education was made available to an increasing number of students in other areas of specialization including health, home economics, and office education. New programs were offered and existing programs were expanded at all levels of instruction. Enrollment at the postsecondary level, for example, increased from 5,973 in fiscal year 1963 to 31,685 in fiscal year 1968. During the same period, enrollment in adult education programs increased from 168,058 to 267,856.

Expansion of existing programs and development of new programs continued with the implementation of the 1968 amendments. Enrollment in secondary and postsecondary education continued to increase between fiscal year 1968 and fiscal year 1972.

An apparent decrease in enrollment in adult vocational education was due in part to revised methods of reporting and tabulating such enrollment.

If Federal funding of vocational education programs currently supported under part B of the act continues through fiscal year 1977, enrollment in occupational education at the secondary level will exceed 204,000 by fiscal year 1977, and enrollments in postsecondary vocational education will approach 84,000.

To the extent possible throughout the period covered by this report, vocational education programs have been developed and offered on the basis of analysis of existing and anticipated opportunities for employment, including estimated employment in new and emerging occupations.

c. Postsecondary courses

Table III shows a breakdown of postsecondary enrollments by vocational education program according to enrollments in junior and community colleges, technical institutes, area vocational schools, and other postsecondary institutions.

TABLE III.—POSTSECONDARY ENROLLMENTS IN VOCATIONAL EDUCATION

	Junior colleges and community colleges	Area vocational schools[1]	Technical institutes	Other
	Fiscal year 1968			
01	35	22	0	0
04	949	949	0	0
07	5,313	5,540	113	238
09.02	150	150	0	0
14	4,683	4,702	147	113
16	14,780	14,836	464	357
17	3,700	4,216	256	386
Total	29,611	(30,415)	980	1,094
	Fiscal year 1972			
01	496	608	271	0
04	3,080	2,727	0	0
07	9,812	9,742	205	349
09.02	414	414	0	0
14	13,695	12,350	74	214
16	6,429	7,009	525	339
17	13,415	13,636	1,729	607
Total	47,341	(46,486)	2,804	1,509
	Fiscal year 1977 (projected)			
01	808	989	438	0
04	5,002	4,427	0	0
07	15,952	15,823	331	563
09.02	670	670	0	0
14	22,663	20,068	120	345
16	10,450	11,389	848	547
17	21,808	22,161	2,795	979
Total	76,953	(75,527)	4,532	2,434

[1] In junior colleges and community colleges and other institutions designated as area vocational schools.

The primary goal of postsecondary vocational-technical education in Texas is to provide programs of instruction designed for both current and future occupational needs of in-school and adult students. To achieve this goal, continued emphasis has been placed on updating

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present programs and developing new programs to satisfy the needs of business, industry, and governmental units.

From fiscal year 1963 to fiscal year 1972 total enrollment in postsecondary vocational education programs increased from 5,973 to 51,654. During fiscal year 1963, no vocational education programs in agriculture, health, gainful homemaking, or office education were offered at the postsecondary level. Enrollment in postsecondary vocational education programs will increase from 51,654 in fiscal year 1972 to an estimated 83,919 in fiscal year 1977.

d. Disadvantaged students

Table IV sets forth enrollment data for educationally disadvantaged students by regular and special needs programs.

TABLE IV.—DISADVANTAGED STUDENTS

	Fiscal year			
	1963	1968	1972	1977 (projected)
Regular	0	0	17,361	36,159
Special needs	0	6,344	4,711	12,441
Total	0	6,344	22,072	48,600

Indicative of Texas' concern for providing education for all youth and adults regardless of race or ethnic background, economic condition, place of residence, or handicapping condition are the programs for the educationally disadvantaged.

Prior to fiscal year 1968, no students classified as disadvantaged were enrolled in regular programs funded under part B of the act. By fiscal year 1972, 17,361 students classified as disadvantaged were enrolled in regular programs. By fiscal year 1977, disadvantaged students enrolled in regular programs will total an estimated 36,159.

During fiscal year 1968, all disadvantaged students were classified as special needs students. For fiscal year 1972 only students in programs funded under part 102(b) of the act were classified as special needs disadvantaged students. These totaled 4,711. Enrollment of disadvantaged students in special needs programs funded under part 102(b) will total an estimated 12,441 by fiscal year 1977.

e. Handicapped students—

Table V shows enrollment of handicapped students in regular and special needs programs.

TABLE V.—HANDICAPPED STUDENTS

	Fiscal year			
	1963	1968	1972	1973 (projected)
Regular	0	0	2,705	4,952
Special needs	0	0	3,342	4,900
Total	0	0	6,047	9,852

Vocational education programs for the handicapped are designed for students receiving services of special education programs or possessing physical or mental handicaps which prevent them from succeeding in regular vocational education programs. Vocational education for the handicapped has three objectives: (1) To determine the student's occupational capabilities and interests, (2) to assist the student in developing salable skills, and (3) to provide job placement and followup to insure occupational competence.

Prior to fiscal year 1969, Federal funds were not used to provide specific educational services for handicapped students in Texas, but by fiscal year 1972, 2,705 handicapped students were enrolled in regular programs and 3,342 handicapped students were enrolled in special needs programs. By fiscal year 1977, handicapped students in regular programs will total an estimated 4,952, and handicapped students in special needs programs will total an estimated 4,900.

f. Adults

Table VI shows enrollments in vocational education programs designed to provide preparatory training for unemployed adults and supplementary training or retraining for employed adults. The table shows actual enrollments in fiscal year 1963, fiscal year 1968, and fiscal year 1972, and projected enrollments in fiscal year 1977.

TABLE VI.—ADULT ENROLLMENTS

	Fiscal year 1963	
01	5,081	96,546
04	6,157	23,162
07	3,744	0
09.02	0	0
14	0	0
16	2,568	0
17	3,773	27,027
Total	21,323	146,735
	Fiscal year 1968	
01	0	104,201
04	2,097	36,395
07	0	915
09.02	0	0
14	3,182	4,705
16	788	7,043
17	731	27,808
Total	6,798	181,067
	Fiscal year 1972	
01	0	91,076
04	4,354	16,846
07	1,356	2,785
09.02	13	745
14	9,578	4,817
16	1,011	604
17	12,842	10,476
Total	29,154	127,349
	Fiscal year 1977 (projected)	
01	0	86,497
04	11,754	45,583
07	2,093	4,910
09.02	33	1,877
14	15,894	7,993
16	1,518	907
17	21,712	17,715
Total	53,004	165,482

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Table VII shows actual adult enrollments in programs supported with Federal manpower funds in fiscal years 1963, 1968, and 1972, and projected enrollments in fiscal year 1977. The great difference in the number of adults served by vocational education programs and manpower training programs is readily apparent from inspection of tables VI and VII.

TABLE VII.—ADULTS ENROLLED IN COURSES USING FEDERAL MANPOWER FUNDS

	Fiscal year—			
	1963	1968	1972	1977 (projected)
01	0	0	0	0
04	0	0	0	0
07	0	0	0	0
09.02	0	0	0	0
14	211	2,036	3,038	3,280
16	0	0	0	0
17	1,108	10,687	15,948	17,220
Total	1,319	12,723	18,986	20,500

g. Financing

(i) A detailed description of the method used for the distribution of part B funds for State vocational education programs is attached to this report (attachment I).

(ii) Table VIII shows a detailed breakdown of the dollar amounts and percentages of Federal and State funds going to the cities in the State which have a population in excess of 250,000.

TABLE VIII.—AMOUNT AND PERCENTAGE OF FEDERAL AND STATE FUNDS ALLOCATED TO MAJOR CITIES, FISCAL YEAR 1972

Cities	Federal	Percent	State	Percent
Austin	$112.513	0.42	$904,028	0.86
Dallas	437.527	1.67	2,731,123	2.63
El Paso	219.004	.83	1,047,856	1.07
Fort Worth	240,359	.91	1,688.692	1.62
Houston	429.023	1.63	3,822.027	3.66
San Antonio	184,501	.70	1,234,409	1.18

Table IX presents a comparison of the total allocation going to each city in the State with a population in excess of 250,000 and the percent of total Texas population within each city.

TABLE IX.—EXPENDITURES FOR VOCATIONAL EDUCATION IN CITIES WITH POPULATION EXCEEDING 250,000, FISCAL YEAR 1972

Cities	Population	Percent	Expenditure	Percent
Houston	1,232,802	11.01	$4,241,573	3.26
Dallas	844,401	7.54	3.168,650	2.43
San Antonio	654,153	5.84	1,418,910	1.09
Fort Worth	393,476	3.51	1.929,051	1.48
El Paso	322,261	2.87	1,266,860	.97
Austin	251,808	2.24	1,016,541	.78

Table X shows a detailed breakdown of the dollar amounts and percentages of Federal and State funds going to counties identified as "poorest" in the State.

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TABLE X.—AMOUNT AND PERCENTAGE OF FEDERAL AND STATE FUNDS ALLOCATED TO POOREST COUNTIES

Counties	Federal	Percent	State	Percent
Delta	$1,411	0.0000538	$21,258	0.000204
Menard	330	.0000125	12,272	.000118
Somervell	314	.0000119	12,172	.000117
Kinney	300	.0000114	11,784	.000113
Real	250	.0000095	9,291	.000089
Jeff Davis	0	0	0	0

Table XI presents a comparison of the total allocation going to counties identified as most poor within the State and the percent of total Texas population within each identified county.

TABLE XI.—EXPENDITURES FOR VOCATIONAL EDUCATION IN POOREST RURAL COUNTIES, FISCAL YEAR 1972

Counties	Population	Percent	Expenditure	Percent
Delta	4,927	0.000044	$22,669	0.000174
Menard	2,646	.000024	12,602	.000097
Somervell	2,793	.000025	12,486	.000096
Kinney	2,006	.000018	12,084	.000093
Real	2,013	.000018	9,541	.000073
Jeff Davis	1.527	.000014	0	0

The preceding tables show there is no significant disparity in the relationship of population and fund allocations in the largest urban communities and the poorest rural areas of the State.

h. Construction and equipment

Table XII lists expenditures of Federal, State, and local funds for construction of area vocational schools and equipment during fiscal years 1963 through 1968, 1969 through 1972, and 1973 through 1977.

TABLE XII.—INVESTMENTS FOR CONSTRUCTION AND EQUIPMENT

Source	Fiscal year— 1963-68	1969-72	1973-77 (projected
Federal	$8,380,448	$16,947,026	$10,327,159
State Local	8,380,848	19,982,890	10,497,564
Total	16,761,296	36,929,916	20,824,723

Prior to the implementation of the 1963 act there were no Federal or State expenditures for school construction. Funds made available under the 1963 act and the 1968 amendments have made possible the construction of needed area vocational school facilities which have provided vocational education to increasing numbers of students throughout the State.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

This section presents statistical data concerning the categorical programs authorized under the Vocational Education Act as amended in 1968.

a. Exemplary programs and projects

Table XIII shows programs and numbers of persons served with Federal funds made available under part D of the act.

TABLE XIII.—EXEMPLARY PROGRAMS AND PROJECTS

Programs	Fiscal year— 1968	1972	1977 (projected)
Occupational orientation	0	71, 500	131, 875

Occupational orientation is completing its third year as a pilot program in 28 public schools in Texas. The vocational program of occupational orientation is assisting schools in achieving the concept of career education. Occupational orientation consists of three distinct types of activities to achieve specific objectives designed to fulfill unmet needs of all students in grades K–12: (1) Occupational awareness, (2) occupational investigation, and (3) occupational exploration. By fiscal year 1977 enrollment in occupational orientation programs will total an estimated 131,875.

b. Residential vocational education

The State board for vocational education has elected not to develop policies and programs regarding residential vocational education until such time as funds become available for the establishment and operation of such programs.

c. Consumer and homemaking education

Table XIV lists enrollments in consumer and homemaking education at the secondary and adult levels for useful homemaking, gainful homemaking, disadvantaged, and handicapped enrollments.

TABLE XIV.—ENROLLMENT IN CONSUMER AND HOMEMAKING EDUCATION

Level	Fiscal year 1963 vocational home economics	Fiscal year 1968	
		Useful home economics	Gainful home economics
Secondary	102, 294	134, 133	504
Adult	73, 996	48, 340	0
Total	176, 290	182, 473	504

ENROLLMENT IN CONSUMER AND HOMEMAKING EDUCATION

Level	Fiscal year 1972					
	Part F—Consumer homemaking			Part B—Occupational home economics		
	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	181, 315	17, 954	2, 307	7, 741	4, 109	26
Adult	108, 877	55, 017	4, 618	18	18	0
Total	290, 192	72, 971	6, 925	7, 759	4, 127	26

ENROLLMENT IN CONSUMER AND HOMEMAKING EDUCATION

Level	Fiscal year 1977 (projected)					
	Part F—Consumer homemaking			Part B—Occupational home economics		
	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	209,560	45,460	3,096	14,949	5,780	1,342
Adult	110,957	55,422	6,196	1,910	200	0
Total	320,517	100,882	9,292	16,859	5,980	1,342

Homemaking education programs enrich the quality of family life by preparing youth and adults for the occupation of homemaking and for employment in occupations outside the home. Preparation for employment outside the home is provided through home economics cooperative education and home economics preemployment laboratory education. The preemployment training combines laboratory experiences at school with related classroom instruction.

Enrollment in consumer homemaking increased from 176,290 in fiscal year 1963 to 182,473 in fiscal year 1968. With the implementation of the 1968 amendments, enrollments in consumer homemaking increased from 182,473 in fiscal year 1968 to 290,192 in fiscal year 1972. During the same period, occupational homemaking increased from 504 to 7,759. Both consumer homemaking and occupational home economics provided educational services for a substantial number of educationally disadvantaged and handicapped students.

If funds made available under part F of the act continue to support consumer homemaking programs, enrollments will increase to an estimated 320,517 by fiscal year 1977. During this same period, disadvantaged students being served in consumer homemaking programs will exceed an estimated 100,000, and enrollments of handicapped students in these programs will increase to an estimated 9,300.

Enrollments in occupational home economics will increase from 7,759 in fiscal year 1972 to an estimated 16,859 in fiscal year 1977. If Federal funding continues to support occupational home economics programs through fiscal year 1977, enrollments of disadvantaged students in these programs will approach an estimated 6,000, and enrollments of handicapped students will exceed an estimated 1,300.

d. Part G—Cooperative vocational education

Table XV lists the number of students enrolled in programs supported by funds made available under part G of the act.

TABLE XV.—COOPERATIVE VOCATIONAL EDUCATION ENROLLMENT

	Fiscal year			
	1963	1968	1972	1977 (projected)
Part G cooperative	0	0	1,729	2,736

The primary objective of part G cooperative vocational education in Texas is to prepare young people for employment by combining a meaningful work experience with formal education. Formal education provides both general and specific knowledge about various career occupations. Training in a supervised work environment enables students to apply the knowledge which they have acquired in the classroom and helps them to develop the skills and attitudes necessary to function successfully in the world of work. By fiscal year 1977, enrollments in part G cooperative vocational education programs will exceed an estimated 2,700 students.

e. Work study programs

Table XVI presents the number of students served in work study programs supported with funds made available under part H of the act.

TABLE XVI.—*Work Study program enrollments*

Fiscal year:	
1963	0
1968	1,011
1972	991
1977 (projected)	1,270

Work study programs are designed to provide part-time or full-time employment in public agencies for both secondary and postsecondary students who need the earnings from employment to commence or to continue their vocational training. By fiscal year 1977, financial assistance under part H of the act will be provided for an estimated 1,270 students if Federal funding continues to provide support for the program.

f. Research and training

Although the Vocational Education Act of 1963 included provisions for Federal support of occupational research, funds for this purpose were not made available until fiscal year 1969 when the Vocational Education Amendments of 1968 were implemented. Since that time Federal funds have been made available to pay up to 90 percent of the cost of occupational research. In fiscal year 1972 the Federal allocation under part C of the 1968 act was $578,266. These funds were used to support more than 30 research projects during fiscal year 1972. It has been estimated in the Texas State plan for vocational education that $783,000 in Federal funds will be needed for the support of research projects in fiscal year 1977.

The value of part C funds, in terms of dollars allocated to the State for occupational research, is easily tabulated. The value of the results of occupational research, on a cost-benefit basis, is inestimable. Some research projects such as those involving the development of curricula can be evaluated on the basis of the tangible products produced and subsequently utilized by the educational system. The results of other projects, such as those involving the development of recommendations for subsequent policy decisions, are less easily evaluated. In general, however, it is probable the outcomes of occupational research have resulted in (1) an improvement of the climate for occupational education, (2) a favorable change in the attitude of administrators and educators concerning occupational education, (3) an upgrading of the image of occupational education among educators and noneducators, and (4) an increased acceptance of research as a continuous and essential function of occupational education.

Thirty-seven research projects supported with part C funds are in progress in Texas. The results of each of these projects are expected to contribute to the improvement of occupational education. A list of the 37 projects is attached (attachment II).

STATE ADVISORY COUNCIL

A sample of the most significant contributions of the advisory council for technical-vocational education in Texas, in terms of specific recommendations to the State Board for Vocational Education, are exemplified in the attached reprt of the State Board dated January 1973 (attachment III).

Summary and recommendations

The emergence of vocational education as an essential part of public education began more than 50 years ago with the enactment of Federal legislation which made financial support available to States for the promotion, development, and improvement of programs for occupational preparation in the public schools. The initial legislation provided support for programs in agricultural education, trade and industrial education, and home economics. Subsequent enactments provided additional support for these programs and made funds available for the support of new programs in distribution, fishery trades, and health occupations. The 1963 act and the 1968 amendments have made funds available to maintain, extend, and improve existing programs of vocational education, to develop new programs, and to provide part-time employment for young people who need earnings to continue their vocational education on a full-time basis. Support is also provided for programs designed to meet the needs of persons of all ages in all communities including those preparing to enter the labor market who need to upgrade their skills or to learn new ones, and those with special educational handicaps. Funds are also available for area vocational school construction, work study programs, and ancillary services to assure quality in all vocational education programs.

The availability of Federal support for a broad range of programs and services has stimulated the rapid growth and development of vocational education. Federal assistance has served as an essential stimulus to the accelerated development and expansion of vocational education, yet the planning, operation, and administration of vocational education has continued to be a State responsibility. National priorities have been established to serve as guidelines for State planning, but the modification of these priorities and the development of specific programs and services have remained prerogatives of the individual States. Within this flexible administrative structure, a Federal, State, and local cooperative relationship in vocational education has emerged and has become one of America's greatest resources.

In Texas, Federal, State, and local cooperation has led to the development of a public vocational education program which has earned national recognition for breadth, scope, and effectiveness. The program has grown from a few high school courses in trade, industrial, and agricultural subjects in 1917 to the present comprehensive program of occupational preparation for secondary school students, post-secondary school students, adults, and persons with special needs. Programs in many occupational specializations have been tailored to fit the needs of high school students, high school graduates, high school dropouts, employed persons who need retraining to achieve stability or advancement in their employment, and individuals having academic or socio-economic handicaps that prevent their successful progress in the regular vocational education program.

Each instructional program is carefully designed to provide the knowledge and skills necessary for successful employment in the occupation for which the student is being prepared. Field, shop, laboratory, and other occupational experiences are combined and coordinated with classroom instruction to make up a balanced program which recognizes and provides for the specific vocational objectives of each student.

Programs are initially developed on the basis of the actual needs of the labor market as revealed by local, regional, and statewide manpower surveys. After the need for a program is established, specific curricula and the level of instruction are structured in terms of student aptitudes, interests, and capabilities.

Vocational program planning, development, and implementation therefore reflect a synthesis of the best available information concerning the current and projected manpower needs of business and industry and a full awareness that the needs, interests, and abilities of each individual remain an important consideration in our society.

The progress, as illustrated in the tables included in this report, could not have been made in the absence of the stimulus provided through continued Federal support and the categorical funding provided under the 1963 act and the 1968 amendments.

The comprehensive long-range goal for occupational education in Texas is to plan, develop, and provide high quality occupational education which is readily accessible to all persons in all communities, which is suited to the needs, interests, and abilities of all persons who participate, and which is realistic in terms of actual and anticipated opportunities for gainful employment.

It is doubtful this goal can be reached if Federal legislative support of categorical funding of vocational education is withdrawn.

Attachment I

3.0 *State Vocational Education Programs.*

3.1 *Allocation of Funds for Part B Programs.*

Annual plans.—In developing its annual plans, the State Board will take into consideration and describe in terms of quantifiable data and information (1) the characteristics of persons to be served, (2) estimates of enrollments, (3) manpower needs, (4) available staff resources, (5) administrative and other related ancillary supportive services, (6) vocational guidance and counseling service needs, and (7) area school construction needs.

Target clientele.—Funds appropriated under Part B of the Act will be used for vocational education for:

Persons in high school.

Persons who have completed or left high school and who are available for study in preparing for entering the labor market.

Persons who have already entered the labor market and who need training or retraining to achieve stability or advancement in employment.

Disadvantaged persons, and

Handicapped persons.

Programs, services, and activities.—Programs, services, and activities to be provided by the State Board shall include (1) vocational guidance, instruction, and counseling designed to aid students in selection of, preparation for, and employment in all occupational areas or preparation for enrollment in a highly skilled or technical program, (2) vocational teacher education and training, (3) program evaluation, (4) development of instructional materials, (5) special demonstration and experimental programs with particular emphasis on those programs presenting innovations and teaching techniques, such as the use of educational television and films to teach large audiences where the con tent is essentially the same as direct instruction, (6) State and local administration and supervision, and (7) vocational training through arrangements with private, nonprofit, nonsectarian institutions which can make significant contribution to attaining the objectives of the State Plan.

3.11 *Percentage Requirement.* State Board policies will assure that the allocation of Federal funds under Part B among local educational agencies will be made in accordance with the following requirements:

3.11–1 *Vocational Education for Disadvantaged Persons:* The legal requirement that vocational education programs for disadvantaged persons be financed at 15 and/or 25 percent of the Federal fund allotments of Part B of the Act will be met in full. In the event this requirement imposes a hardship or is impractical in its application in any fiscal year, the State Board may request the U. S. Commissioner to waive this requirement.

3.11–2 *Post-Secondary Vocational Education:* The legal requirement that vocational education programs for post-secondary education be financed at 12 and/or 25 percent of the full Federal fund allotments of Part Bof the Act will be met in full. In the event this requirement imposes a hardship or is impractical in its application in any fiscal year, the State Board may request the U.S. Commissioner to waive this requirement.

3.11–3 *Vocational Education for Handicapped Persons:* the legal requirement that vocational education programs for handicapped persons be financed at 10 percent of the Federal fund allotments of Part B of the Act will be met in full.

3.12 *Identification of Disadvantaged Persons.* The term "disadvantaged" persons," as defined by the U. S. Office of Education, means "persons who have academic, socioeconomic, cultural, or other handicaps *that prevent them from succeeding* in vocational education." A "Category and Definition Guide" distributed by the U. S. Office of Education provides the following additional guidelines for the identification of disadvantaged persons:

> The basic criterion for participation in the disadvantaged program is inability to succeed without special assistance. The disadvantaged definition states, in part, "Disadvantaged persons' means persons who have academic, socioeconomic, cultural, or other handicaps *that prevent them from succeeding* in vocational education . . ."
>
> Congress intended that special assistance be provided to those persons who have disadvantages which prevent them from succeeding in regular programs designed for the normal or average person. Persons should not be classified as disadvantaged because of poverty, neglect, delinquency, race, or other similar reason(s). If the person is succeeding or can be expected to succeed in a vocational program without special assistance, he should not be classified as disadvantaged. For an individual to be classified as disadvantaged, it is necessary to satisfy both of the following conditions:
>
> > The person is not succeeding or cannot succeed and
> >
> > His disadvantage is a major contributing factor to his lack of success.
>
> Measurement of success or probability of success is not simple. The legislation and the regulations provide for success criteria to be determined by the states to allow maximum flexibility in determining who should qualify for these programs. This recognizes that measurement of "success" varies among states, among programs and courses within states, and among levels of instruction.

> Some of the more commonly used criteria for measuring success or ability to succeed include age and grade level, level of academic performance, performance on one of several different achievement tests, and the like. Individuals who have dropped out of school before completing an educational program may be classified as disadvantaged. This classification presumes that a dropout lacks adequate background to perform successfully in the vocational education program.
>
> All these criteria—age in grade, test scores, academic performance, etc.—are acceptable indicators of inability to succeed. The intent of the statute is to provide ready access to vocational training or retraining to "persons of all ages in all communities." Each student should be given support and assistance to develop his abilities to the fullest. However, reasonable care should be taken in determining ability to succeed to assure that those eligible for special assistance can benefit by enhancing their eligibility for gainful employment.

Individuals who are unable to succeed in regular programs of vocational education may be selected by local school officials to receive special vocational education services or for enrollment in special programs of vocational education.

3.13 *Identification of Handicapped Persons.* Vocational education under the State Plan will be offered to persons who are handicapped by reasons of being mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impaired persons who are otherwise eligible for vocational education but who because of their handicap cannot succeed in regular vocational programs without special educational assistance or who require a modified vocational program. Identification of the handicapped will be made through the assistance of agencies listed in 1.72.

In identifying handicapped persons for enrollment in vocational education programs, local independent school district populations are administered diagnostic screening instruments to detect students who may need further individual testing and evaluation. Screening devices include achievement or other forms of standardized tests, group psychological tests, health records, teacher observations, and information elicited from parents. From the screening process, students may be referred for additional individual testing and evaluation by apropriate medical and psychological practitioners as outlined in the eligibility criteria for each type of handicapping condition listed in the State Plan for Special Education. Intensive evaluation of the referred student's assessment data is studied by a placement committee. In view of educational, medical, psychological, and other services and programs in the town, region, and State, which would best meet the needs of the students, a recommendation for educational placement is made. Subject to the approval of the parents, the student is enrolled in an educational program which is best suited to his needs. Continuing student assessment and placement committee review allows the student opportunities to make educational program adjustments.

Handicapped students who are eligible for enrollment in approved secondary programs of special education will be eligible for vocational education programs for the handicapped (refer to Appendix 3.13).

3.14 *Manpower Needs and Job Opportunities.* In the allocation of funds under Part B of the Act, the State Board will give due consideration to manpower needs and job opportunities as determined pursuant to Section 3.26–1 of the Plan. The allocation of funds in the annual plan is predicated upon analyses of the manpower and job opportunity data furnished by the cooperating organizations described in Sections 1.7 through 1.72–3 and Section 3.26–1 of this Plan. Funds are allocated among the programs, services, and activities described in the Act and among programs for (1) persons in high school, (2) persons who have completed or left high school and who are available for study in preparation for entering the labor market, (3) persons who have already entered the labor market and who need training or retraining to achieve stability or advancement in employment (other than persons receiving training allowances under the Manpower Development and Training Act of 1962 or the Trade Expansion Act of 1962), (4) disadvantaged persons, and (5) handicapped persons.

3.15 *Vocational Education Needs of Groups to be Served.* In making annual allocations of funds under Part B of the Plan to local educational agencies, the State Board will give due consideration to vocational education needs of (1) persons enrolled in high school, (2) persons who have completed or left high school, (3) persons who have already entered the labor market, (4) disadvantaged persons, and (5) handicapped persons.

Programs, services, and activities which can serve the greatest number of persons in areas of the State where greatest manpower needs and job opportunities exist shall be given consideration for highest priority. Other factors which will be given strong consideration in the allocation of funds shall include (1) the number and types of persons in each of the five population groups to be served with special emphasis given to disadvantaged and handicapped as identified in 3.12 and 3.13 of the Plan; (2) reasonable expectation of success of programs, services, and activities; (3) the availability of matching funds; (4) adequacy of facilities; and other factors indicated in local applications. The allocation of funds shall comply with percentage requirements as indicated in 3.11.

3.2 *Allocation of Funds to Local Educational Agencies for Programs, Services, and Activities.* The State Board will allocate funds within the percentage requirements of the Act for disadvantaged persons, post-secondary vocational education, handicapped persons, and consumer and homemaking education, and within the statewide matching requirements except when a waiver of percentage requirements has been obtained.

3.21 *Local Applications.* Local educational agencies shall make application to the State Board for allocation of Federal and State funds in accordance with procedures established by the State Board and on application forms developed by the State Board.

Copies of the following aplications for programs, services, activities, and construction are shown in the Appendix:

3.21–1 Annual School District Plan for Occupational (Vocational) Education.

3.21–2 Annual Application for Funds for Post-Secondary Occupational Programs.

3.21–3 Application for Approval as an Area Vocational School.

3.21–4 Guidelines for Preparation of Pilot Project Proposals of Vocational Education for the Handicapped.

Separate proposals (applications) for pilot programs for the handicapped require joint review by the Department of Occupational Education and Technology, the Division of Special Education, and the Texas Rehabilitation Commission before approval by the Associate Commissioner.

3.22 *Procedures for Processing Local Applications for Vocational Programs, Services, and Activities.* Applications made by local education agencies shall be submitted to the State Board for Vocational Education for processing in accordance with State legislation and the Act. Processing of applications shall include:

> A review by a reviewing committee composed of consultants, area supervisors, and head State supervisors of the vocational programs, services, or activities for which funds are being requested.
>
> The reviewing committee may utilize the services of personnel from the Advisory Council for Technical-Vocational Education in Texas, local and State agencies, and other departments of the State Education Agency to evaluate information provided in the application. As a part of the reviewing process, members of the committee may make visits to the applying local education agency for the purpose of obtaining additional data and/or assisting the applicant in making revisions of the application.
>
> The Associate Commissioner will approve applications upon recommendation of the reviewing committtte in accordance with policies and procedures of the State Board.

3.22–1 *Programs, Services, and Activities Undertaken by the State Board:* The administrative channels and procedures to be observed by the State Board in initiating, approving, and undertaking vocational programs, services, and activities in State area vocational education schools and other State schools and institutions shall be the same as those described in 3.22 provided they are not in conflict with current State statutes providing for the administration and operation of State schools and other State schools and other State institutions.

3.22–2 *Programs, Services, and Activities Undertaken by Local Educational Agencies:* In addition to procedures described in 3.21, local educational agencies, in initiating programs, services, and activities, will establish local vocational advisory committees to provide advice relating to the assessment of vocational needs and planning, conducting, and evaluating the quality and effectiveness of vocational programs, services, and activities.

Upon approval by the State Board, local educational agencies may initiate pilot, experimental, and demonstration projects designed to provide services and activities which have not been provided for in regular programs of vocational education described in local applications. Procedures for the preparation, submission, and review of proposals for such special projects are described in the Appendix.

3.22–3 *Coordination with Other State Agencies:* In the planning and development of vocational education programs, services, and activities, the State Board may, as needed, enter into cooperative arrangements with the agencies identified in Section 1.7 of this Plan and other agencies such as the Texas Department of Public Welfare, State Department of Health, State Department of Mental Health and Mental Retardation, and State Department of Corrections.

Copies of such cooperative agreements or arrangements when executed will be sent to the U.S. Commissioner of Education and will become a part of the State Plan.

3.23 *Procedures for Processing Local Applications for Construction.* The State Board for Vocational Education requires local school districts to make application for area school designation. It is the responsibility of the State Board through the Associate Commissioner to review the application to determine if they meet the requirements as stipulated by the State Board for Vocational Education, the Vocational Act of 1963, as amended, and applicable State laws.

Area school designation is withheld until such time as both State and/or local matching money is available.

When money is available, area school designation is made to applicant school districts and consultative services are offered by staff personnel as to square footage requirements, adequate storage space, and other pertinent information to start the development of good solid education specifications for the area school construction program.

3.23–1 *Projects Undertaken by the State Board:* State statutes do not authorize State operated area vocational school projects except as they pertain to the State schools for the deaf and the blind.

3.23–2 *Projects Undertaken by the Local Educational Agencies:* The following policies and procedures will be followed by the State Board and local educational agencies in approving and undertaking area vocational education school facility projects.

Consideration of proposals for area vocational school facilities will be accepted from public education institutions or public school districts that accept as students residents of the State. Projects relating to the following types of area vocational schools may be submitted for approval to the State Board:

A specialized high school used exclusively or principally for providing vocational education in no less than five different occupational fields to persons who are available for full-time study in preparation for entering the labor market.

The department of a high school exclusively or principally used for providing vocational education in no less than five different occupational fields to persons who are available for full-time study in preparation for entering the labor market.

The technical or vocational public school used exclusively for the provision of vocational education in no less than five different occupational fields to persons who have completed or left high school and who are available for full-time study in preparation for entering the labor market.

The department or division of a public junior college, community college, State college, or university which provides vocational education in no less than five different occupational fields under the supervision of the State Board, leading to immediate employment but not necessarily leading to a baccalaureate degree.

An application from a local educational agency for proposed programs shall include:

A projected plan for meeting the future vocational education needs of potential students in the area or community being served and will be submitted by local educational agencies as part of their application for an area vocational facility.

This plan will include the manpower needs, the number of eligible students available who desire and need the programs to be conducted and are able to benefit from such training and the available number of eligible students in future years to justify the costs of programs to be implemented.

The number of employment opportunities available in gainful wage-earning occupations in the area to be served by the area vocational school to provide assurance and expectancy that a majority of students prepared for such employment in the area served by the school or in other areas in the occupation for which they are trained or in closely related occupations.

The administrative organization and policy for the area vocational schools are adequate for organizing and conducting vocational-technical education to meet needs of students, including employment of educationally and occupationally competent supervisors, counselors, and teachers.

Assurances that the local financial resources of the area vocational school, in addition to State and Federal resources, are adequate for efficient operation and continuing operation of the school.

Provisions to provide at least one program in five distinctly different occupational fields.

3.23–3 *Coordination with Other State Agencies (and Local Agencies):* Texas statutes do not require clearance from or coordination with other State agencies.

Each application will be checked with the requirements and standards furnished by appropriate State agencies concerned with safety, health, and other standards to determine that the construction proposal is not in conflict with the regulation which prohibits the expenditure of these funds on facilities or a portion thereof which is supported by Federal statutes.

Clearance from and coordination with local agencies are made by the local education agency through the licensed architect or engineer employed by the school for compliance through the city inspector with the building code adopted by city ordinances. This includes flood hazards, health standards, safety codes, fire standards and other construction standards.

3.23–4 *Criteria for Determining Relative Priority of Construction Projects:* Factors to be considered in establishing the priority of projects submitted to the State Board include:

The number of persons to be benefited.

The geographical area to be served.

The need for the type of school to be established or improved.

The need and opportunity for persons trained in the occupational fields to be served.

Economically depressed areas and high unemployment areas.

Areas of high concentration of unemployed youth and school dropouts.

The average daily attendance.

The number of new programs and/or new units to be implemented by reason of constructing a new facility.

Agreements between secondary and post-secondary institutions.

Non-duplication of facilities already available in the area unless labor market data justify.

Population of county or district.

The number of area schools in the area to be served.

Cooperative agreements signed by other school districts.

Areas of special needs, including disadvantaged and handicapped persons.

Manpower needs and job opportunities.

3.23–5 *Terms and Conditions of Approved Construction Projects:* The approval of projects will be subject to the following terms and conditions and field audits and administrative reviews made of the project while in progress will serve as the means for securing compliance with these conditions:

The facility will be functional and will meet the needs of those persons and communities to be served.

The facility will provide reasonable accessibility for the physically handicapped person.

The projects will be undertaken in an economic manner and will not be elaborate or extravagant in design or materials.

Sufficient funds will be available to meet the State and local share of constructing the facility except as provided for in 3.26–3 of this Plan.

When construction is completed, sufficient State and local funds will be available for effective use of the facility for the purposes for which it is being constructed.

The interest of the State Board or the local educational agency in the facility or in the land on which the facility is located will be sufficient to assure undisturbed use and possession for the purpose of construction and operation of the school facility covered in the project during the expected usable life of such facility.

The area vocational school shall be available to all residents of the State or an area of the State designated and approved by the State Board. In the case of a technical or vocational school, the department or division of a junior college or community college or university, such schools must admit as regular students both persons who have completed high school and persons who have left high school.

Representatives of the U.S. Office of Education and such other persons as the Commissioner may designate will have access at all reasonable times to the project wherever it is in preparation or progress, and the contractor will provide proper facilities for such access and inspection.

3.23–6 *Advisory Committees: Program Advisory Committees.*—Any vocational program shall be operated with the advice and counsel of an advisory committee(s) appointed by the superintendent of schools and confirmed by the local board, and will be composed of representatives of employers and employees from the occupations or industries related to programs being conducted or proposed to be offered.

Included in the functions of the committee(s) will be advice and counsel relating to need for programs in occupations located in the proposed area, conduct of courses of study and curricula based upon job analyses, length of programs sufficient to provide adequate preparation for employment or to improve the knowledge and skills of employed persons, adequate physical plant, equipment and instructional materials, sources of qualified teachers, counselors, and supervisors, evaluation and improvement of programs as necessary, and other advice and counsel required for conducting programs of high quality, realistic in the light of actual or anticipated opportunities for gainful employment and suited to the needs, interests, and ability of students to benefit from such program.

Administrative Advisory Committee.—State Board regulations require an administrative advisory committee when a vocational program is to be operated in any tax-supported institution as a condition of approval.

An administrative advisory committee, composed of a minimum of one trustee from each public school district in the county, shall be appointed by the Board of Trustees of the school district administering the area vocational school approved by the Texas Education Agency.

When more than one area school is approved in a county, a minimum of one trustee of each public school district in the designated area of the county approved by the Texas Education Agency shall be appointed by the Board of Trustees of the school district administering the area school in each designated area of the county.

When more than one county is approved by the Texas Education Agency as the area to be served by an area vocational school, the advisory committee shall be composed of a minimum of one trustee of each public school district in the area designated and the committee shall be appointed by the Board of Trustees of the school district administering the area school.

3.23–7 *Eligible and Ineligible Facilities:* In the event a facility is to be used for both an eligible and ineligible purpose, this expense will be prorated on a square footage basis if the actual prorated cost cannot be determined.

3.23–8 *Disposition of Facilities and Equipment:* Whenever area vocational education school facilities or items of equipment, each initially costing $100 or more in which the United States Government has participated, are sold or no longer used for the purposes permitted under the Acts, it is agreed that the United States Government is to be credited with its proportionate share of the value of such facilities and equipment at that time, the value being determined on the basis of the sale price in the case of a bona fide sale or the fair market value in the case of discontinuance of use for a vocational education purpose or other diversion. The State Board agrees that all inventories and records be kept for all items of equipment or area vocational education school facilities and assumes responsibility for having available in the Texas Education Agency information sufficient for a determination of whether such facilities and equipment continue to be used for a purpose provided for under the Acts.

3.23-9 *Allowable Expenditures f orConstruction of Area Vocational Education Schools:* Financial assistance shall not be available for construction of area school facilities prior to the approval of such construction by the State Board and prior to signing the contractual agreement except for expenditures for architectural and engineering costs.

Expansion, alteration, and remodeling of an existing facility will be limited to such school facilities as classrooms, laboratory shops, etc., as distinguished from normal maintenance and repair.

Site grading and land preparation on which there is to be constructed new buildings and/or expansion of existing buildings.

Architectural, engineering, and inspection services rendered subsequent to the date of site selection and legal cost (other than advertising, interest, and carrying charges on bonds), conventional furniture for the area school and instructional equipment for new programs and/or units.

Purchase of existing facilities, not publicly owned, may be considered as an allowable expenditure for financial assistance if the facility is deemed appropriate for the programs scheduled for implementation and for which the purchase of said facility has been approved by the State Board for Vocational Education.

3.24 *Maintenance of Effort.* The State Board assures that Federal funds available under Part B of the Act will not supplant State or local funds but will be so used as to supplement or increase the amount of State and local funds that would, in the absence of such Federal funds, be made available for vocational education programs. No Federal funds will be made available to a local educational agency in any fiscal year unless the State Board finds that the combined State and local funds expended for vocational education by that agency for the preceding year was not less than such combined funds expended for the second preceding fiscal year (unless a waiver of this requirement is approved by the U.S. Commissioner when the five percent clause is not met).

3.25 *Matching.*

3.25-1 *Overall State Matching:* The State Board assures that for every dollar of Federal funds expended for vocational education programs, services, and activities under Part B of the Act, excepting Section 102(b), one dollar of State and/or local funds will be expended on a statewide basis. Federal funds shall not be allocated in a manner which will require local educational agencies to match Federal funds at a percentage ratio uniform through the State.

The Federal share of expenditures under Part B, as financed with funds under Section 102(b), for programs for the disadvantaged in areas of high concentration of youth unemployment and school dropouts shall be 100 percent as provided in Regulation 102.132.

In every instance, criteria identified in 3.26 of this Plan will be taken into consideration.

3.25-2(a) *Reasonable Tax Effort (Public Schools):* No local education agency with taxing authority which is making a reasonable tax effort will be denied funds for the establishment of new vocational education programs solely because it is unable to pay the non-Federal share of the cost of such programs.

In determining the taxpaying ability of each school district, the State Commissioner of Education, subject to the approval of the State Board of Education, shall calculate an economic index of the financial ability of each county to support the Foundation School Program. The economic index of a county shall be calculated to approximate the percent of the total taxpaying ability in the State which is in a given county, and shall constitute for the purpose of this Act a measure of one county's ability to support schools in relation to the ability of other counties in the State. The economic index for each county shall be based upon and determined by the following weighted factors:

Assessed valuation of the county, weighted by twenty (20).

Scholastic population of the county, weighted by eight (8).

Income for the county as measured by: Value added by manufacture, value of minerals produced, value of agriculture products, payrolls for retail establishments, payrolls for wholesale establishments, payrolls for service establishments, weighted collectively by seventy-two (72).

State statutes require that the economic index be recomputed each year and that the computation shall be based on a three-year average of the factors involved. This means that the data for the earliest year are removed from the three-year average each time the index is computed and the data for the most recent available year are included to replace the year that is removed.

The State Commissioner of Education shall determine the amount of local funds to be charged to each school district and used therein toward the support of the Foundation School Program, which amount shall be calculated as follows:

Divide the State and county assessed valuation of all property in the county subject to school district taxation for the next preceding school year into the State and county assessed valuation of the district for the next preceding school year, finding the district's percentage of the county valuation. Multiply the district's percentage of the county valuation by the amount of funds assigned to all of the districts in the county. The product shall be the amount of local funds that the district shall be assigned to raise toward the financing of its Foundation School Program.

3.25–2(b) *Reasonable Tax Effort (Post-Secondary Schools):* No local educational agency with taxing authority which is making a reasonable tax effort will be denied funds for the establishment of new vocational education programs solely because it is unable to pay the non-Federal share of the cost of such programs.

Two types of public post-secondary institutions exist within the State: those supported primarily by State funds and those supported by a combination of State and local funds.

A study of each institution's relative ability to pay has been conducted on a statewide basis and will be updated biennially. The biennial study takes into account such factors as student population to be served, cost of goods and services, land costs, instructional salary costs, availability of labor markets, and value of taxable property.

The studies are made to verify that districts having larger amounts of taxable property are faced with correspondingly higher costs and larger student population, whereas districts having lesser amounts of taxable property have smaller student population and are faced with lower operating costs. Budget requests based on statewide averages of differing costs, by program, tend to equalize support, giving larger tax districts a smaller ratio of support and smaller tax districts a larger ratio.

On the basis of an updated statewide study every two years, each local education agency's ability to pay will be individually determined. Provisions are made for adjustments in biennial budget requests made of the Legislature by the State Board.

3.26 *Criteria for Determining Relative Priority of Local Applications.* The Advisory Council for Technical-Vocational Education in Texas will study the best available data relating to statewide needs for vocational education and make recommendations to the State Board regarding relative priorities for the approval of local applications.

Priorities recommended by the Council will be based upon demographic, geographic, economic, and manpower needs and job opportunities of the community, area, and State.

In addition, recommendations will be made as to specific programs and services to serve the needs of each of the population groups listed in 3.15 of this Plan.

3.26–1 *Manpower Needs and Job Opportunities:* In allocating funds among local education agencies, the State Board shall give due consideration to information regarding current and projected manpower needs and job opportunities, particularly new and emerging needs and opportunities on the local, State, and national levels.

Particular consideration will be given to those local education agencies whose proposed vocational education programs are best designed to (1) fulfill current or projected manpower needs in existing occupations at the local level by preparing students for current or projected job opportunities in such occupations or (2) fulfill new and emerging manpower needs at the local, State, and national levels by preparing students for new and emerging job opportunities at such levels. Identification of current and projected manpower needs and job opportunities, particularly new and emerging needs and opportunities, will be based on reports provided the State Board by the Texas Employment Commission and other agencies identified in Sections 1.7 through 1.72–3 of this Plan, the Bureau of Labor Statistics, U.S. Department of Labor, local education agencies (as a result of community surveys), and other public and private organizations. The current manpower and job opportunity data from all sources will be synthesized to provide a comprehensive basis for current vocational program development and modification, and the long-range manpower and job opportunity projections provided by the more reliable sources of data will be carefully considered and incorporated into the long-range program section of this Plan. Follow-up studies of the effectiveness of program planning to meet manpower needs and job opportunities will be closely coordinated with the program evaluation described in Section 1.5 of this Plan.

3.26–2 *Vocational Education Needs:* The State Board will make a continuous assessment of the vocational needs of population groups identified in the Act and listed under Section 3.15 of this Plan for the purpose of identifying the relative priorities of each of thePart B program purposes of the Act and which are listed under Programs, Services, and Activities of 3.1 of this Plan.

The continuous assessment of the vocational needs shall include the collection of data by the State Board in cooperation with the Advisory Council for Technical-Vocational Education in Texas, local and State agencies and organizations, and departments of the State Education Agency. The collected data shall be organized and processed for interpretation by the State Board and the Advisory Council. In addition to the periodic evaluation as described in 1.5 of this State Plan, particular attention is focused on the increased cost placed on local educational agencies in providing vocational education for the disadvantaged and handicapped.

The State Board, utilizing the recommendations of the Advisory Council for Technical-Vocational Education in Texas and relative priorities established by local educational agency applications, shall determine statewide priorities as they pertain to Part B program purposes. Such determined priorities shall be used in developing the long-range program plan for the State.

3.26–3 *Relative Ability to Provide Resources:* In allocating funds, the State Board will give due consideration to the relative ability of the local institution to provide resources necessary to meet the educational needs of the community or area, particularly in economically depressed areas as set forth in 3.25–2(a) and (b) of this Plan. By State law, any local educational agency or tax district which is able to support its local fund assignment and maintain an accredited institution is considered to have the ability to pay its relative share of the educational costs of the State.

3.26–4 *Relative Cost of Programs, Services, and Activities:* The local educational agency will submit information showing any excess costs for program operation. This will be compared to the statewide average for program operation. Information in the statewide average will be taken from the most recent information and data received by the State Board from local educational agencies on an annual basis.

Those districts with relative costs in excess of the statewide average may be reimbursed at a greater rate, depending upon the degree of the excess costs. Special consideration will be given those institutions having additional financial burdens by the necessity of providing programs for the disadvantaged and handicapped, bilingual education, and other programs not needed in other parts of the State. Each case will be determined upon its own merit.

3.26–5 ***Other Criteria of the State:*** The State Board shall use the criteria described in 3.26–1 through 3.26–4 and any other criteria needed to comply with State law in determining relative priority of local applications.

3.27 ***Application of Criteria in Determining the Relative Priority of Local Applications.***

3.27–1 ***Public School Programs:*** Funds are allocated to vocational education programs on the basis of authorized vocational education teacher units. These teacher units are allocated to public schools under the State Foundation School Program. The program specifies a minimum salary schedule for all teachers and is based on teachers' educational levels and years of teaching experience. State and local moneys are combined in funding this salary schedule and, while the statewide average indicated 80% State and 20% local funding, the ratio varies according to local ability to pay. State contributions vary from more than 99 percent to independent school districts with minimum financial resources to zero in school districts not qualifying for Foundation Fund support.

To be eligible for allocation of vocational teacher units under the State Foundation School Program, each district must show evidence of meeting the following criteria:

Manpower needs and job opportunities, as determined through comprehensive community and area occupational surveys;

Student needs, as revealed through orientation sessions and interest surveys;

Community interest, as indicated through surveys of representative groups of business people and advisory committee members;

The expressed interest and desire of the local education agency for meeting the vocational educational needs of its clientele; and

Physical facilitis, existing and projected, that will be available.

All applications that are approved by the above criteria are eligible for State financing under the Foundation School Program.

Example.—State Foundation School Program.

As described in 3.25–2(a) of this Plan and in accordance with Article 2922–16, Sections 3 and 5, Vernon's Civil Statutes, the following formula is used in computing local fund assignments to each school district in support of the State Foundation School Program.

Divide the State and county assessed valuation of all property in the county subject to school district taxation for the next preceding school year and to the State and county assessed valuation of and district for the next preceding school year, finding the district's percentage of the county valuation. Multiply the district's percentage of the county valuation by the amount of funds assigned to all of the districts in the county. The product shall be the amount of local funds that the district shall be assigned to raise toward the financing of its school program.

The Economic Index for the 1973–1974 school year as adopted by the State Board on March 10, 1973 appears in the Appendix to this Plan.

Supportive services.—In addition to the salaries of professional personnel and maintenance and operating funds financed under the State Foundation School Program described above, State funds are available for purposes other than teachers' salaries. This State allocates additional State funds for supportive services making it possible for vocational teachers to participate in in-service teacher meetings, supervise and evaluate local programs, participate in youth leadership activities, attend State scheduled conferences, assist local school districts in developing a five-year plan for vocational education, and carry out an effective program of vocational education. Details concerning reimbursable travel expenses authorized for vocational education personnel are provided in the Appendix to this Plan.

The formulas displayed on the following pages show the relative importance and weight assigned to each of the criteria described in Section 3.26 of this Plan and show how these weighted factors are applied in the approval of local applications and the allocation of funds for vocational education programs.

FORMULA (SECONDARY AND POSTSECONDARY), HANDICAPPED AND DISADVANTAGED (REGULAR PROGRAMS)

[Selected factor 0-6, State average basic factor 6]

	State weight	State basic factor	Weighted State factor
Manpower needs and job opportunities	5	6	30
Vocational education needs	6	6	36
Relative ability to pay	4	6	24
Relative cost of programs, services, and activities	2	6	12
Total			102

102÷4=25.5=Average State Weighted Factor.
Unrefined rate of reimbursement to schools=100%

Example of Approval of Local Education Agency Applicant—School "Z"

School "Z" requests assistance in providing vocational education opportunities for identified handicapped and/or disadvantaged persons. The estimated cost of these services is $122,000.

Manpower needs and job opportunities inthe area school "Z" serves are considered slightly above average; the vocational needs of students to be served are deemed to be vital and urgent; the ability of the school district, regarding revenue resources, is quite limited due to a large concentration of State-owned, non-taxable property; programs, services, and activities are currently at a peak cost due to excessive interest rates and the inflated costs of labor and material.

	State weight	School factor	Weighted school factor
Manpower needs and job opportunities	5	4	20
Vocational education needs	6	6	36
Relative ability to pay	4	6	24
Relative cost of programs, services, and activities	2	6	12
Total			92

92÷4=23=Average Local Weighted Factor.

State average weighted factor—25.5.

Average weighted factor for local education agency—23.

Thus, the weighted factor for this school is 2.5 below the weighted State factor.

Therefore,

$$25.5:1.00=23:x$$
$$25.54x=23$$
$$x=.9=90\%$$

Total reimbursement from State appropriations[1] to School "Z" will be 90% of their request for $122,000, or $109,800. The local education agency, School "Z", will fund the remaining 10%, or $12,200.

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[1] In the State of Texas, the Legislature appropriates State and Federal funds for vocational education. Accounting procedures and accounts are used by the State Board in financial transactions. Specific ratios of Federal and State funds to be used for these purposes can be determined after information on the Federal level of funding is made known.

For example; if State direct appropriations represent 25% of the funds budgeted for this category, and the award is 90%, then 67.5% would be charged to the Federal account when the voucher or warrant is issued and 22.5% would be charged to the State account.

FORMULA—CONSTRUCTION, INSTRUCTIONAL EQUIPMENT, AND SECONDARY ANCILLARY SERVICES (GUIDANCE-SUPERVISION)

[Selected factor—0-6, State average basic factor—3]

	State weight	State basic factor	Weighted State factor
Manpower needs and job opportunities	6	3	18
Vocational education needs	5	3	15
Relative ability to pay	4	3	12
Relative cost of programs, services, and activities	2	3	6
Total			51

$51 \div 4 = 12.75$ = Average State Weighted Factor.
Unrefined rate of reimbursement to schools = 50%.

Example of Approval of Local Education Agency Application—School "X"

School "X" requests assistance in providing a $260,000 vocational facility. This amount will be expended for construction ($200,000) and instructional equipment ($60,000). Because of negative philosophy and attitude of former administration, vocational education opportunities in this independent school district have not kept abreast of manpower needs and job opportunities or of vocational education needs. Therefore, this school receives a relatively high rating for these two basic factors. The school district has a voter-approved bond issue and above average per capita income; relative ability to pay is, therefore, assigned a low basic factor. School "X" is situated in an area of the State which has relatively high labor and material costs. This basic factor is, therefore, assigned as relatively high basic factor under this category.

	State weight	State basic factor	Weighted State factor
Manpower needs and job opportunities	6	5	30
Vocational education needs	5	4	20
Relative ability to pay	4	2	8
Relative cost of programs, services, and activities	2	4	8
Total			66

$66 \div 4 = 16.5$ = School "X" Average Local Weighted Factor.
State average weighted factor—12.75.
Average weighted factor of district "X"—16.50.
Thus, the weighted factor of this school is 3.85 over the State factor.
Average weighted factor of district "X" = 16.50.
Therefore,

$$12.75 : 50\% :: 16.5 : x$$
$$12.75x = 8.250$$

$x = 64.9\%$ = Total reimbursement from State direct appropriation and/or Federal funds[1] ($168,740).

Thus, because of unusual conditions, school "X" cited in this example, is eligible to receive $168,740 in assistance. Local fund requirements are, therefore, reduced to $91,260.

3.27-2 *Adult Vocational Programs:* All applications which meet State approval standards as to appropriate instructional purposes and populations for which proposed, shall be eligible for State direct appropriation and Federal funds.

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[1] In the State of Texas, the Legislature appropriates State and Federal funds for vocational education. Accounting procedures and accounts are used by the State Board in financial transactions. Specific ratios of Federal and State funds to be used for these purposes can be determined after information on the Federal level of funding is made known.

For example; if State direct appropriations represent 25% of the funds budgeted for this category, and the award is 90%, then 67.5% would be charged to the Federal account when the voucher or warrant is issued and 22.5% would be charged to the State account.

FORMULA—ADULT VOCATIONAL PROGRAMS (PREPARATORY AND SUPPLEMENTARY)

[Selected factor—0 6, State average basic factor—4]

	State weight	State factor	Weighted State factor
Manpower needs and job opportunities	6	4	24
Vocational education needs	5	4	20
Relative ability to pay	4	4	16
Relative cost of programs, services, and activities	2	4	8
Total			68

68÷4=17 Average State Weighted Factor.

Unrefined rate of reimbursement to schools=75%.

Example of Local Education Agency Application—School "Y"

School "Y" is a comparatively small rural community with limited financial ability in which new industries have recently located. There are very few trained employees available and there is a relatively high rate of unemployment. The school "Y" applies for $30,000 to conduct short-term adult preparatory classes in several different jobs or skills required for employment in new plants.

	State weight	State factor	Weighted State factor
Manpower needs and job opportunities	6	[1]7	42
Vocational education needs	5	2	10
Relative ability to pay	4	4	16
Relative cost of programs, services, and activities	2	3	6
Total			74

[1] Extra consideration given because the programs in question are experimental and demonstrational in nature.

74÷4=18.5=School "Y" Average Local Weighted Factor.

State Average Factor—17.
Average Weighted Factor of District "Y"—18.5.
Thus, the weighted factor of this school is 1.5 over the State factor.
Therefore, $17:75\% = 18.5:x\%$, $17x = 13.875$, $x = 81.62\%$=Total reimbursement from State and/or Federal funds[1] is 81.62% of $30,000 or $24,486.
The local share would be 18.30% of $30,000 or $5,514.

3.27-3 *Post-Secondary Programs:* The total amount of funds required for each post-secondary institution is determined by multiplying the number of student contact hours generated in each program of instruction by a formula rate for each type of program or cluster of programs. A contact hour is defined as one hour or class period in which a student is in a classroom or laboratory and being taught or supervised by an instructor. The total number of student contact hours of instruction in a single course is determined by multiplying the number of students times the number of hours per week of instruction times the number of weeks.

The formula rates for each program were developed as a result of a statewide analysis of program costs. The variance in rates reflects the added expense of some programs. For example, expensive programs such as data processing, with its excessive equipment costs, require a higher rate per student contact hour than a program such as law enforcement. The formula rates will be reviewed by a joint review committee composed of three members of the State Board for Vocational Education, three members from the Coordinating Board, Texas College and University System, and three members from the Advisory Council for Technical-Vocational Education in Texas. These recommended rates will be adopted by the State Board for Vocational Education if they appear to be supported by recent and accurate cost data.

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[1] In the State of Texas, the Legislature appropriates State and Federal funds for vocational education. Accounting procedures and accounts are used by the State Board in financial transactions. Specific ratios of Federal and State funds to be used for these purposes can be determined after information on the Federal level of funding is made known.

For example: if State direct appropriations represent 25% of the funds budgeted for this category, and the award is 90%, then 67.5% would be charged to the Federal account when the voucher or warrant is issued and 22.5% would be charged to the State account.

An initial allocation is made to each local education agency by multiplying the contact hours generated the previous summer, fall, and spring semesters by the appropriate formula rates.

Additional program enrollments which generate additional contact hours permit each local education agency to share in additional funds budgeted for post-secondary instruction. Thus, these additional funds are allocated according to the vocational education needs of students and fund the increased costs incurred by local education agencies in meeting increased manpower needs of the community. The same differential rate formula is used in computing additional fund allocations.

Manpower needs and job opportunities, as well as the vocational education needs of students, are carefully weighed in initial and continued approval of all programs. Only those contact hours in approved programs are counted toward fund allocations. This insures that programs are being funded to meet the established manpower requirements and vocational education needs of the State.

Local applications for funds are accompanied by an annual program plan and a five-year plan. Applications are prepared by using information from the following factors:

Description and economic condition of the area served.

Property valuation and tax rate.

Significant changes in business and industrial activity.

Population trends in the area served.

Projected secondary school enrollments in the area served and projected student enrollment of the post-secondary local education agency.

New programs anticipated to meet the needs of students and the community. (New programs must bear relationship to 1 through 5 above.)

Priorities established for implementing these.

Estimated percentage increase in the number of students enrolled in vocational-technical courses at the local education agency.

Forecast of total program costs and cost per student.

The percentage of local funds, as determined by the local education agency and shown on the application, is evaluated in relationship to the total tax effort of the community. The relative ability-to-pay of the local education agency is based on the apparent tax valuation and current tax rate of the community. A low percentage of local money will not cause an application to be disapproved provided a real tax effort is shown. However, maintenance of effort, indicated by prior years' local expenditures, will be required.

Each factor, manpower needs and job opportunities, vocational education needs, relative ability-to-pay and reltive cost of programs is studied in evaluating each local application.

Any factor found not to be acceptable will delay approval of the application until the deficiency is corrected. Relative priority for considering applications and the percentage amount of Federal funds for each approved application will be determined by application of the formula shown in 3.27-2.

All applications are reviewed by a staff committee of the State Board for Vocational Education.

ATTACHMENT II.—OCCUPATIONAL RESEARCH PROJECTS IN PROGRESS

Institution	Title	Duration
Austin Independent School District.	Development of Occupational and Technical Programs and Curriculum for Austin Community College.	Feb. 1, 1973 to Aug. 31, 1973.
Bryan Independent School District.	A System Approach to Placement and Follow-Up, A Computer Model.	Aug. 1, 1971 to June 30, 1973.
Dallas County Community College District.	Cooperative Education for American Indians in Dallas County.	May 1, 1973 to June 30, 1974.
Do	Occupational-Technical Curriculum Development TV Study.	Do.
Do	Planning a Pilot Study Involving A.D. Nursing Students in Family Health Maintenance Processes.	May 15, 1972 to June 30, 1973.
Region X Education Service Center.	A Project to Develop a Competency-Based Counselor Training Program.	Mar. 1, 1973 to June 30, 1974.
Region XIII Education Service Center.	Development and Implementation of a Texas Industrial Start-Up System.	July 10, 1972 to June 30, 1973.
El Paso Community College	Comprehensive Manpower Study, El Paso, Tex.	Apr. 1, 1973 to Sept. 30, 1973

ATTACHMENT II.—OCCUPATIONAL RESEARCH PROJECTS IN PROGRESS—Continued

Institution	Title	Duration
EPD Consortium D, Region X Education Service Center.	Study of Needs for Professional Personnel Development of Vocational Technical Teachers.	Feb. 1, 1973 to June 30, 1973.
Do	Search for Effectiveness of the Occupational Orientation Programs in the State of Texas.	Apr. 1, 1972 to June 30, 1973.
Grayson County College	Coordinated Effort for Career Education (CECE) Planning and Implementation.	Feb. 1, 1972 to June 30, 1973.
Do	Coordinated Effort for Career Education (Computer Assisted Guidance Component).	June 1, 1972 to June 30, 1973.
Do	Job Placement and Follow-Up	July 1, 1972 to June 30, 1973.
Harlandale Independent School District.	Computerized Vocational Information Service	Jan. 1, 1973 to May 31, 1973.
Do	Job Placement Follow-Up Research for Career Development.	Jan 4, 1972 to June 30, 1973.
Houston Community College District.	The Development of a Model for Establishing a New Health Career Education Program in a Community College.	Dec. 1, 1972 to June 30, 1973.
Lee College	Evaluation of Postsecondary Vocational Training in the Texas Department of Corrections.	Mar. 1, 1972 to June 30, 1973.
McLennan Community College	Development of a Community Career Counseling and Information Program.	June 1, 1973 to June 30, 1974.
North Texas State University	Manpower Economic Education Project to Improve Teachers' and Pupils' Occupational Employment Knowledge and Attitude.	Dec. 1, 1971 to June 30, 1973.
Paris Junior College	Evaluation of Coordinated Vocational Academic Education in Texas.	Mar. 1, 1972 to June 30, 1973.
Do	A Study of Construction Technology Curriculums and Construction Industry Needs with a Suggested Approach to Curriculum Development in Building Technology Training in Texas Community Colleges.	Apr. 1, 1972 to June 30, 1974.
Do	A Pilot Program in Residential Construction and Technology.	Sept. 1, 1972 to June 30, 1974.
Ranger Junior College	Development of Cooperative Planning for Technical-Vocational Programs.	Mar. 15, 1973 to June 30, 1973.
San Antonio Independent School District.	Upgrade Teacher Competencies in the Use of Career Education Materials.	May 1, 1972 to June 30, 1973.
South Plains College	Proposed Curriculum and Training Procedure Revisions in Vocational Nurse Education.	Jan. 1, 1973 to June 15, 1973.
Texas A. & M. University	A Study of Manpower Training Requirements for the Texas Agriculture Industry.	May 1, 1972 to June 30, 1973.
Do	Student Perception of the Effectiveness of Area Vocational Secondary School Program of Texas in Meeting Student Interests and Perceived Needs.	Sept. 1, 1972 to June 30, 1973.
Do	Perceptions of Vocational Administrators and High School Principals Regarding the Role of the Vocational Administrator.	Jan. 1, 1973 to Aug. 31, 1973.
Texas School for the Deaf	Development of a Career Education Curriculum for Deaf Students at the Texas School for the Deaf.	June 1, 1972 to June 30, 1973.
Texas State Technical Institute	High School Career Interest and Information Survey, Phase II.	Sept. 1, 1972 to May 31, 1973.
Do	High School Career Interest and Information Survey, Phase III.	Sept. 1, 1972 to Feb. 28, 1974.
University of Houston	Internship Instruction Training Program for Occupational and Technical Subjects.	June 30, 1972 to June 30, 1973.
Do	Vocational Education in Texas High Schools: An Ethnic Comparison.	Feb. 1, 1973 to May 31, 1974.
Do	Regional Development and Coordination of Allied Health Manpower Education in the Community College.	May 1, 1972 to June 30, 1973.
University of Texas	A Comparative Study of the Occupational Achievement of Vocational and Nonvocational High School Graduates in Texas.	June 30, 1972 to May 31, 1973.
Do	Observed and Self-Reported Individualization of Instruction by Vocational and Nonvocational Teachers.	Feb. 1, 1973 to Aug. 31, 1973.
Do	A Study to Identify Data Elements for Comparative Assessment of Effectiveness and Efficiency of Technical and Vocational Programs in the Community Colleges of Texas.	Do.

Attachment III

RECOMMENDATION I—REDIRECTION OF EDUCATION SYSTEM AND CAREER EDUCATION IMPLEMENTATION

The Council Recommends:

1 That the State Board of Education continue its commitment to "redirect" the education system in Texas, continue its No. 1 priority to career

education and to utilize the Advisory Commission on Career Education and other groups in supplementing the expertise of its staff in developing and implementing this redirection. That "Career Education" conferences be developed on regional and local levels to communicate the "Career Education" concept to educators and community leaders and explore strategies for implementation within the communities of this state.

Action/Response

The State Board takes the position that career education be continued as a high priority.

Further Council Recommendation:

2. The following actions are needed to further implement the career education model as outlined on pages 7–9 of this report:

K–6 . . . develop a formula and recommend funding for personnel to develop and coordinate the career awareness aspects of the model and to make provisions for curriculum materials needed for implementation.

6–9 . . . provide leadership within the State to establish in all middle and/or junior high schools career orientation, information, investigation, and exploration for all students for the equivalent of one period per school day per year. This phase will require additional instructional personnel, guidance services, supervisory services, facilities, and materials.

The major effort will be the *redirection of the present resources* to provide meaningful educational experiences with strong emphasis on the needs of individuals in career development.

9–12 . . . that further action be taken to enhance the comprehensiveness of educational experiences in high school to further identify career direction for each individual student. ". . . to the end that *every* student upon LEAVING or GRADUATION from high school is prepared to continue further career preparation AND/OR have developed a skill that is saleable in the job market."

13–14 and Adult—these phases of the model have been addressed in Recommendation VI and VIII on pages 24 and 27.

Action/Response

The State Board has provided local schools with leadership and financial assistance to implement activities that will contribute to the development of the model recommended by the Council.

The State Board is commited to the achievement of the goals of Career Education.

Further Council Recommendation:

3. In order to further implement the "redirection" of the education system, the following actions should be taken:

(*a*) Revision of curriculum guides, in all disciplines to incorporate career education concepts at all levels;

(*b*) Revision of school accreditation standards, to the end that the secondary school has prepared all individuals to continue further career preparation and/or have developed a skill that is saleable in the job market;

(*c*) Revision of teacher preparation programs and certification in support of the career thrust of all educational experiences of all students;

Action/Response

The State Board will commit leadership and financial resources to the achievement of revision of curriculum guides, revision of school accreditation standards, and revision of teacher preparation programs and certification.

Further Council Recommendation:

(*d*) Revise formulas for the staffing of local schools to provide for guidance services throughout the educational experiences of individuals from Kindergarten through Adult, in keeping with their individual and group needs to include placement services in cooperation with existing placement agencies, follow-up of students and adjustments of programs and activities in keeping with evaluation received from former students.

Action/Response

Formulas will be revised to provide for vocational guidance services in accordance with State and Federal Legislation and the State Plan for Vocational Education.

RECOMMENDATION II—SUPPLEMENTARY DELIVERY SYSTEM FOR EDUCATIONAL SERVICES

The Council Recommends:

1. That the State Board of Education take action to support legislation to ammend Chapter 28 of the Texas Education Code to authorize area school to encompass one or more independent school districts in one or more counties of the state; that criteria for formation of such jurisdiction be the responsibility of the State Board of Education;

2. Jurisdictions so formed would be by a majority vote of citizens within the proposed jurisdiction, after such time the dictrict comprising the jurisdiction would elect a Board of Education to administer supplementary educational activities within the jurisdiction.

3. Funds raised through taxing within each jurisdiction for capital improvement and operating would be matched by state appropriated funds.

4. The administration within the jurisdiction would be empowered to coordinate and supervise occupational educational activities within the jurisdiction to provide a comprehensive resource composed of public secondary and post-secondary institutions and private school, to the end that comprehensive preparation programs would be provided to all youth and adults of the jurisdiction in keeping with the needs of such individuals and their meaningful role in society and the economy.

5. In fulfilling its responsibility under this Act, the State Board of Education will approve petitions for elections to form area school jurisdictions when it has been determined that the jurisdiction to be formed can reasonably be expected to provide comprehensive preparation resources by meeting minimum standards in the areas of (a) population and/or scholastics, (b) minimum property evalution to suport the district and (c) that the district be constituted geographically and proposed facilities located in such a maner that services provided by the district are not denied citizens of the district by virtue of unreasonable distances they must travel to secure the services.

Action/Response to 1, 2, 3, 4, and 5 above

The concept of area school jurisdictions (its objectives, legislation needed for its creation, funding, methods of creating, structure, and operation procedures) was previously accepted by the State Board of Education as a means to providing more adequately educational services to the students and adults in need of training in Texas. With the acceptance of this concept, the State Board of Education made a commitment to seek legislation and to initiate such jurisdiction if and when legislation and funding become available.

A bill has been prepared and efforts will be made to secure the needed legislation in the next regular session to meet in January 1973.

If the bill becomes law, the State Board will take the necessary steps within the limitations of the law and funding available to develop a plan for the implementation of additional delivery systems for education services.

Further Council Recommendation:

6. Provisions should be made to make services available to rural and sparsely populated areas that canont conveniently be included in area school jurisdictions. These services can be provided through a combination of the following techniques:

(*a*) Extension Centers from jurisdictions and institutions;
(*b*) Mobile facilities;
(*c*) Itinerant instructional programs;
(*d*) Utilization of developing telecommunications systems;
(*e*) Other strategies and techniques that would make meaningful preparation programs available to the vast majority of the citizens of the state.

Action/Response

Within funds available, studies will be made of rural and sparsely populated areas not served by area school jurisdiction or other existing public or private organizations to determine the needs for occupational instruction. Where there are established needs, further studies will be made to determine the most satisfactory ways to meet these needs. Consideration will be given to costs for delivery of services, the effectiveness of the services, and other problems of administration of program operation.

Further Council Recommendation:

7. That provision made for state suport of the transportation of students for occupational training between campuses, districts and institutions.

Action/Response

As a part of the State Board's continuing effort to provide more effective transportation, a recommendation has been prepared for the consideration of the 63rd Texas Legislature.

UTAH

State Director—Walter E. Ulrich

INTRODUCTION

Throughout the history of vocational education, Federal funding has initiated a surge of vocational enrollments in the public high schools and post high schools. Such was the case in 1963 when the Vocational Education Act of 1963 was enacted and funds were made available to States. Since that time, due to Federal allocations as well as increased interest and funding on the part of State legislatures, vocational education in the State of Utah has continued to grow at a steady pace. The projections in some areas of growth reach as high as 50 percent through 1977. These projections are in line with projected job slots as indicated by the Utah Employment Security Office.

Enrollments could not increase without concurrent increases in the quality of programs through curriculum and instruction at the various levels of vocational education instruction. Much has been done in the development of curriculum materials and inservice and preservice teacher training in vocational education as the result of Federal and State funds. Planning and budgeting over these last 10 years have become more sophisticated due to a call on the part of the public for greater accountability from the public schools. Therefore, job training is more relevant to job needs making the dollar value of vocational education funding much more applicable to the needs of the public.

In past years the Federal Government has been a major employer of Utah workers. Our present Governor has made a concerted effort to bring other kinds of nongovernmental and nondefense related industries into the State of Utah so that as prospects for peace became more eminent, the economy of the State might be able to maintain its present stature, as workers began to change from Federal to private industry employment. With this in mind, the education community has been very cognizant of the demands for training for new industries. For instance, a mobile power sewing unit has been developed that is placed on call in small rural communities to train local workers in numerous clothing manufacturing plants that are springing up in many of our rural communities. As new industries enter the State providing new jobs, the vocational education training institutions stand ready to provide whatever training is necessary to fill the job slots provided.

Residential centers for vocational education are not seen as a need in the State of Utah at this time. Therefore, here has been no paricular effort to develop this kind of educational facility.

RESEARCH AND TRAINING

Research and development activities made possible under part C of the 1968 Vocational Education amendments have resulted in significant advances in curriculum, organization, instruction, media, and materials. More than 100 research studies, evaluations, and development projects have been managed and reported by the relatively small research coordinating unit staff in Utah.

The activities of the research coordinating unit can be summarized, as follows:

a. Basic Research

About 5 percent of the unit's time is spent designing and conducting or supporting basic research studies.

b. Action or Applied Research

The primary value of part C funded research and development lies in this area of research. About 60 percent of the staff time is devoted to action studies.

c. Dissemination

The research coordinating unit staff spends about 30 percent of its time in receiving, storing, retrieving, and disseminating research reports and allied information to administrators, specialists, and teachers.

RESEARCH SUMMARIES

Mobile Office

The use of office simulation curriculum with a mobile office education laboratory has proved very effective in broadening the scope and increasing skills of business students in participating rural high schools of Utah. The research coordinating unit provided for the development and field testing of both approaches in Utah.

Integrated Shop

This innovative approach provided for the combining of courses, developing an integrated curriculum and training teachers to instruct the units in the curriculum and results in a graduate with higher levels of skill in the courses integrated. The research coordinating unit produced evaluation, and validation information on this approach prior to its acceptance and statewide dessemination.

STATE ADVISORY COUNCIL

The Utah State Advisory Council has provided a great deal of service and support for vocational-technical education during the last 5 years. The State Advisory Council has been extremely valuable as an independent voice with the State legislature, the State board and with the general public for vocational education within our State. The State Advisory Council has been effective in causing concern within the State of Utah relating to the finances being pumped into the higher education channels relating to the pittance available to vocational-technical education. They have been most effective in bringing to the attention of legislators, key business leaders, officials of higher education, and the general public the importance of providing services for the population of our State that is not necessarily continuing education at the postsecondary level and to cause concern for the imbalance of funds and financial support for vocational education. They have been most active in the field of public relations and providing support through television, radio, newspapers, and published documents showing the importance of vocational education. I believe their services have been most beneficial. They represent an independent group that has been able to, because of their stature throughout the business and industry community, bring about a much-needed change in the acceptance of vocational-technical education. They have been very supportive of improving the image of vocational-technical education and have been instrumental in bringing this to the attention of people. They have assisted in overall improvement of vocational education programs. The recommendations of the State Advisory Council have supported the direction of the State Board for Vocational Education and have been instrumental in bringing outside support for these programs. Perhaps one of the most effective has been in the field of career education.

SUMMARY AND RECOMMENDATIONS

Vocational education has made great strides in the State of Utah in the last seven to 10 years. This has followed the national trend of acceptance and recognition of the importance of vocational-technical education within our society. The categorical funds that have been available to the State of Utah in vocational education have provided for new, innovative, and special program support in the field of vocational education. Without these Federal funds, I am certain that the State of Utah would not have been able to provide services to local education agencies to the extent that has been possible with the Federal funds.

Cooperative education programs have been expanded extensively through the use of special Federal cooperative program funds. As a result of the success of these programs, State and local funds are now being used to support many of the programs originally started with Federal funding. The same holds true with funds authorized for innovative programs, funds for the handicapped, disadvantaged, and etcetera.

While many handicapped or disadvantaged students would have probably been served in the regular educational system, the vocational funds have made us more aware of the needs and desires of these individuals, and with special funding support, we have been able to better serve this segment of our population.

The Federal funds have provided our State with the opportunity to move in different directions to support the needs of individual students and through the funds we have provided direction which has been beneficial to the business and industry sector as well as the individual students within our State. Without Federal funds over the past 10 years, I am certain that we would not have progressed as far as we have in meeting the needs of the business and industry community and the individual patrons within our State. The use of Federal funds has encouraged innovation and change and has provided many opportunities that were not possible under our previous State system.

There are some concerns we have as it relates to Federal vocational education funding and program support. These concerns are as follows:

1. The State is required to develop plans for vocational education. These plans are highly structured and represent the need of the United States in general but perhaps did not relate to each State specifically. The plan should be more related to the needs of each individual State and flexibility allowed to operate within that State.

2. While State planning is expected, we have usually very little information from the Federal level to the State allocation of funds for the next fiscal year. Since my association with vocational education, we have always had to guess or wonder what the status of funds would be for vocational education at the time we plan for the next fiscal year. Everyone I talked to at the congressional level indicates that they realize that it is extremely difficult for local educational agencies and State agencies to plan for vocational education resources within their State without knowing what the Federal resources will be, but they indicate they see no way to change it because of the system of our Federal Government. I can't believe that this is impossible to overcome. Certainly, 2-year funding or funding 1 year in advance would be a great assistance to the States and local agencies in planning for vocational education and providing these kinds of services.

3. I believe much of the success of vocational education has been the categorical funding to provide support for specific needs areas. If categorical funding is removed, I believe that programs would suffer within our State. Categorical funding has allowed us to provide educational opportunities that were not provided without this support. Because of the high costs and many vocational education programs, it seems that additional support is needed in order to provide resources for these kinds of programs.

TABLE 2A.—JOB TRAINING ENROLLMENTS, 1963-77

Job area	1963			1968		
	High school	Post high school	Adult	High school	Post high school	Adult
Agriculture	3,154			4,319	51	789
Distributive education	1,269		261	1,236	130	560
Health	29	232	31	67	531	26
Consumer and homemaking	4,772		6,588	12,355	1,520	4,846
Home economics occupations preparation				166	238	
Office	9,530	233	1,049	20,153	1,725	2,941
Technical		727	260		1,241	181
Trades and Industrial	646	1,173	6,489	3,499	4,638	3,671
Total	19,400	2,365	14,678	41,795	9,836	13,252
	1972			1977 (projected)		
Agriculture	4,792	92	779	4,677	134	1,008
Distributive Education	2,839	809	4,831	4,957	1,105	5,916
Health	377	1,325	140	527	1,842	300
Consumer and homemaking	24,708	1,628	9,076	27,673	5,458	9,983
Home occupations preparation	1,266	239	728	1,642	296	1,004
Office	21,279	3,464	4,119	26,174	4,088	5,477
Technical	516	3,922	179		7,139	269
Trades and Industrial	8,672	5,469	7,658	11,533	6,224	12,022
Special programs	18,949	594	5,508	28,273	775	7,574
Total	83,397	18,136	33,018	105,456	27,061	43,553

TABLE 2C.—POSTHIGH SCHOOL ENROLLMENT, 1963–77

Year	Area vocational schools	Vocational technical centers	Junior college	Colleges and universities	Total
1963	(1)	(1)	(1)	(1)	(1)
1968	(1)	(1)	(1)	(1)	(1)
1972	1, 303	12, 155	191	4, 487	18, 136
1977 (project)	1, 900	18, 161	300	6, 700	27, 061

[1] Data incomplete.

Note.—Postsecondary education enrollment in the past 10 years has increased markedly due to the expansion of one of our technical colleges and the development of four area vocational centers throughout the state. This growth is expected to increase as another technical college moves to a new and expanded campus and two area centers are expected to be completed within the next 2 years.

Articulated curriculums are being developed that provide a smoother flow of student training from the high school to the post high school institutions. This type of articulation will also have a great effect in increasing enrollment at the post school institutions.

TABLE 2D-E.—HANDICAPPED AND DISADVANTAGED ENROLLMENTS

	1963	1968	1972	(Projected) 1977
Handicapped:				
Part B—State programs:				
Secondary	(1)	(2)	1, 071	1, 403
Postsecondary			182	238
Adult			351	460
Part F—Consumer and homemaking:				
Secondary			145	190
Postsecondary			8	10
Adult			45	59
Part G Cooperative:				
Secondary			3	4
Postsecondary			3	4
Part H—Work—study: Secondary			7	8
Disadvantaged				
Part 102B:				
Postsecondary			1, 793	2, 349
Adult			736	964
Part B—State programs:				
Secondary			2, 025	2, 653
Post secondary			1, 276	1, 672
Adult			895	1, 712
Part F—Consuner and Homemaking:				
Secondary			8, 425	11, 037
Postsecondary			463	607
Adult			2, 583	3, 384
Part G—Cooperative:				
Secondary			68	89
Postsecondary			59	77
Part H—Work-Study: Secondary			59	77
		4, 271	20, 197	26, 457

[1] No data.

[2] Total persons served with special needs—all areas, 4,271.

Note.—The greatest improvement in the teaching of disadvantaged and handicapped students has been the identification of the students, the development of curriculum materials and the inservice training of teachers to proper instruction. Special funds have been used to provide exemplary programs and pilot studies to develop the best means possible for disadvantaged and handicapped students.

TABLE 21.—ADULT ENROLLMENT

			1968, Part B				1972, Part B				1977 (projected)			
1963, Part B, Manpower			Preparatory	Supplementary	Total	Manpower	Preparatory	Supplementary	Total	Manpower	Preparatory	Supplementary	Total	Manpower
Agriculture				789	789		152	627	779		242	766	1,008	
Distributive education	261		98	462	560	25	518	4,313	4,831	22	710	5,206	5,916	40
Health	31		26		26	9	100	40	140	50	180	120	300	100
Home economics	6,588			4,846	4,846		3,834	5,242	9,076		4,193	5,790	9,983	
Home economics Occupation preparation				238	238		423	305	728		582	422	1,004	
Office	1,049	121	1,243	1,698	2,941	287	2,672	1,447	4,119	143	3,560	1,917	5,477	220
Technical	260	95	181		181	90	91	88	179	290	137	132	269	300
Trades and industrial	6,489	96	1,935	1,736	3,671	90	4,544	3,114	7,658	295	7,129	4,893	12,022	400
Special programs						82	5,473	35	5,508	80	7,529	45	7,574	160
Totals	14,678	312	3,483	9,769	13,252	583	17,807	15,211	33,018	880	23,475	20,078	43,553	1,220

TABLE 2g.—COMPARISON OF ALLOCATION OF FUNDS TO POPULATION

	Total public population	Percent of total	State money	Percent of total	Federal Money	Percent	Total	Variation from mean: Percent of total	Variation from mean: Total money	Total population	Student population	Student
Three largest city districts:												
Salt Lake City	175, 885	1.4	319, 566	10.2	83, 596	10.2	403, 162	10.2	3.25	3.31	14, 921	27.02
Ogden	69, 478	.7	157, 838	.5	41, 289	5.0	199, 127	5.0	1.59	1.65	7, 293	27.30
Provo	55, 200	.4	81, 803	2.6	21, 399	2.6	103, 202	2.6	.95	.82	4, 024	25.26
Three smallest districts:												
Daggett	666	.01	10, 763	.34	2, 815	.34	13, 578	.34	.02	[1] 1.11	80	169.73
Piute	1, 164	.02	11, 417	.36	2, 987	.37	14, 404	.36	.05	[1] 1.11	192	75.02
Tintic	884	.01	10, 763	.34	2, 815	.34	13, 578	.34	.02	[1] 1.11	120	113.15
Grand total	1, 059, 273		3, 128, 160		818, 298		3, 946, 458				139, 735	

[1] Disparity in the poorer 3 districts only.

Note.—Federal and State funding in the State of Utah is quite equally distributed. As the chart indicates, there is a disparity existing between the population and expenditures in these three small, rural districts. This is a result of smaller enrollments and the desire of small rural schools to maintain as comprehensive a vocational program as is financially feasible. The construction of area vocational centers is helping to alleviate the higher cost of training in the small rural schools. However, this program has not been entirely completed. Therefore, the costs still remain quite high.

The State of Utah has no cities over 250,000. Therefore, the chart shows the three largest city districts as well as the three poorest county districts.

FINANCING

Distribution Formula for the Allocation of Federal Part B Funds

1. *General.*—The formula for Part B funds is described below. It will be used to compute the amounts of Federal funds to be allocated to school districts under the State plan. To obtain funds under this part, each district shall submit a plan and program proposals to the State Board for Vocational Education for approval as described in the State plan.

Post secondary institutions and area centers will be allocated Part B Federal funds on the full time equivalency enrollment basis. Definition of full time equivalent will be given later in this appendix.

2. *Part B Distribution Formula.*—The amount of Part B money to be allocated for each local school district is determined by formula consisting of the following factors:

a. The number of unemployed youth 16 to 18 years of age in the district. This factor is weighted 1.5 and is a measure of disadvantagement.

b. The number of children under Aid for Dependent Children, foster children, and neglected and delinquent children in the district. This factor is weighted 1.5 and is a measure of disadvantagement.

c. The number of dropouts, grades 9 through 12. This factor is weighted 1.5 and is a measure of disadvantagement and vocational needs.

d. Remaining enrollment grades 9 through 12. This factor is weighted 1.00 and is a measure of vocational need.

3. *Computation of a fund allocation to a district is given below.*—

District X in 1970–71 reported these enrollment data

Unemployed youth, 15×1.5	22
AFDC, etc., 13×1.5	20
Dropouts, 19×1.5	28
Remaining Enrollment grades 9–12	499
Total weighted enrollment	569

The funds allocated for a district is the percentage its vocational weighted enrollment is of the total secondary vocational weighted enrollment times the amount of money available for allocation.

4. *Post secondary schools include Universities, Colleges, Junior Colleges, Technical Colleges, and Area Vocational Centers.*—Funds will be allocated to these institutions on the basis of full time equivalent enrollments (FTE). One full time equivalent enrollment is:

One student enrolled for 15 credit hours per quarter for three quarters—45 credit hours, or

One student enrolled for 180 days at 6 hours per day.

The fund allocation for a school is the percentage its vocational FTE enrollment is of the total post secondary vocational FTE enrollment times the amount of money available for allocation.

Distribution Formula for State Funds Allocated to Districts

A tentative form follows that shows the information needed to distribute bank account money to districts based on the Weighted Pupil Unit (WPU) allocation:

[Form F–1 Annual Estimated Data Report, 1973–74]

GENERAL INSTRUCTIONS ESTIMATED AVERAGE ATTENDANCE AND WEIGHTED PUPIL UNITS (W.P.U.) FOR VOCATIONAL EDUCATION PROGRAMS ADD-ONS, 1973–74

Vocational weighted pupil add-ons are based on average daily attendance (pupil full-time equivalence) and weighted pupil factors assigned to each of the various vocational programs. Total weighted pupil units are computed in four parts: Parts "A", "B", "C", and "D".

Part "A" One weighted pupil unit will be allowed for each 20 regular day school students in *average daily attendance* in *grades nine* through *twelve*. A.D.A. for Part A will be found on page —— of F–1 Report, "Estimated Average Daily Attendance, Middle Schools—Junior High Schools—High Schools."

Part "B" *Vocational Programs in grades 11 and 12:*

Weighted Pupil Units (W.P.U.) for each approved vocational program is based on Average Daily Attendance (F.T.E.) multiplied by 0.5 with the product multiplied by the appropriate weighting factor from this table:

Agriculture	1.20	Home Economics	.30
Business	.70	Technical and Industrial	1.40
Distributive	.50		

Report estimated Average Daily Attendance, in whole numbers, for the proportion of the regular school day and school year these pupils are enrolled and in attendance. Count each pupil once in each one period block.

Include in the calculation only pupils who have a written vocational objective on record for each approved vocational class. Compute W.P.U. as outlined under each program.

Part "C" Each district is allowed 9 weighted pupil units.

Part "D" Multiply number of high schools in this district by 16.

Subject to the total state-wide add-on units authorized for vocational education, the total of Parts "A", "B", "C", & "D" equals the total vocational program weighted pupil units, add-on from the "85%" portion of the appropriation.

EXAMPLES FOR COMPUTING A.D.A. FOR PART B OF FORMULA FOR VOCATIONAL PROGRAMS

A. Minimum School Day, Grades 3-12—5½ Clock Hours.
B. Minimum School Week, Grades 3-12—27½ Clock Hours.
C. Minimum School Year, 180 Days.
D. Formula for Computing Average Daily Attendance (Full-Time Equivalency).

1. Periods of equal length convert pupils into full-time equivalency.

Total class periods attended÷Number of daily class periods in this school÷Number of school in year (180 minimum)=F.T.E. or A.D.A.

A. Six Period Day:

Agricultural Program with 1 Period Block:

	Times
Student U Attends Class	180
Student U Attends Class	160
Total Attendance	340

Total class periods attended. Number of daily class periods in this school. Total days in school year.

340÷6÷180=.3148 A.D.A.

B. Seven Period Day:

Agriculture Program same as above.

Total class period. Number of daily class periods in this school. Total days in school year.

340÷7÷180=.2698 A.D.A.

2. Schools with modular or other atypical schedules (including schools days of unequal length) should account for pupils on an FTE based on minutes in the school day or week whichever is appropriate.

Applied to the Carbon situation, this formula would yield:

1. 9 (students in ADA)×3 (classroom hours per day)×180 (days in year) ×$0.40	$1,944
2. 486 AADPM of $2.95	1,434
3. Item 1 plus item 2	$3,378
4. Vocational Education D.U.'s awarded:	
Day School	3.312
Summer Home Economics	.334
Summer Agriculture	-----
Total	3.646
×$11,910×20% (Maximum Allowable)	=$8,684

5. Carbon's Incentive Grant would be $3,378.

TABLE 2H.—CONSTRUCTION AND EQUIPMENT, 1963-77

	1963-68	1969-72	(Projected) 1973-77
State-local	3, 565, 749	3, 593, 567	4, 582, 680
Federal	874, 348	2, 234, 527	4, 869, 150
Total	4, 440, 097	5, 828, 094	9, 551, 830

As has been previously mentioned, a great deal of effort has gone into the construction of area vocational centers and a new vocational-technical college. These facilities have greatly improved the vocational offerings throughout the State of Utah for high school, posthigh school, and adult vocational education. There has not been a concerted effort to maintain adequate inventories throughout the state. This type of activity should increase in the next 5 to 10 years.

A new campus for one vocational-technical college has been funded by the State legislature.

TABLE 3A.—EXEMPLARY PROGRAMS AND PROJECTS, 1968-72

	Amount budgeted	Persons served
1968	(1)	(1)
1972:		
Power sewing	7, 000	72
Office simulation workshop	1, 350	20
K-6 curriculum	50, 732	1, 700
ISP expansion	56, 500	108
Total	115, 582	1, 900
1977 (projected):		
Career education expansion	220, 000	3, 600

[1] No exemplary.

Since the advent of career education, a great many new programs have been developed through the use of exemplary funds developing the concept of career education K-14. This type of developmental activity will continue to grow using exemplary and other funding so that career education may be fully utilized in the public education system of the State of Utah. Other special programs will also be developed as needs arise in meeting the demands of business and industry.

c. *Consumer Homemaking and Occupational Home Economics*

TABLE 3.—CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS, 1963

		1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
				Part F—Consumer homemaking			Part B—Occupational home economics		
	1962-63 (fiscal year 1963) vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	4, 772	12, 355	166	24, 708	(8, 385)	(145)	1, 266	(252)	(72)
Adult	7, 298	6, 260	238	9, 076	(3, 086)	(53)	728	(145)	(42)
Total	12, 070	18, 615	404	33, 784	(11, 471)	(198)	1, 994	(397)	(114)

The emphasis and progress in consumer and homemaking education since 1963, particularly as it relates to working in economically depressed areas for the improvement of family living, has been continual. In the adult phase, special programs have been developed in cooperation with social service agencies in the identified target areas.

Child development emphasis provided through consumer and homemaking funding, particularly since 1967, have gone into special projects submitted by districts to improve living patterns in the depressed areas. Special work with mothers of Head Start children to improve housekeeping and family food patterns has been very successful.

Special projects in the secondary schools have included working with unwed mothers and young mothers who have not graduated from high school.

Every consumer and homemaking teacher has incorporated into her program activities giving greater consideration to social, cultural conditions, and needs within her school.

TABLE 3d.—*CO-OP—Part G, 1963–77*

	No. Served
1963 and 1968	(1)
1972	771
1977 (projected)	900

[1] No entries.

A specialist in cooperative programs was assigned to the State board for vocational education. With his efforts, the cooperative programs in the State have improve considerably. The number of enrollees in cooperative programs will continue to expand in the future.

One method of using the cooperative programs is to set up classrooms in urban shopping centers where students in distributive occupations can receive instruction in the classroom at the job site, then move into job slots as they become qualified.

TABLE 3e.—*Work-Study, 1963–77*

	Number Served
1963	(1)
1968	300
1972	109
1977 (projected)	350

[1] No entries.

The work-study programs have been effective in two ways. The most natural is that it provides employment for students needing income to complete their schooling. It also performs a service for public institutions providing valuable part-time works. There could be place students on jobs that have some relationship to their future vocational goals.

VERMONT

State Director—Cola D. Watson

INTRODUCTION

Total Enrollment

1963	6, 554
1968	10, 554
1972	17, 534
Projected 1977	34, 901

Comments

Vocational education in Vermont has been developed as a part of a comprehensive secondary program. It was done in this manner in order to better meet the total educational needs of students.

Also, it was decided to place emphasis on development of a secondary system versus a network of vocational postsecondary facilities because the former method would serve that large number of students who had no desire to continue their education beyond high school.

Support for vocational education has grown during this period from business/industry, the legislature and the public-at-large. This is evidenced by the financial support that has been given to programs and facilities. In addition to appropriations for facilities and program operation, the legislature appropriates funds to meet one-half the cost of tuition and transportation for sending schools.

Studies during this 10-year period concluded that Vermont Technical College could meet the need for technicians in the State, and, therefore, there was no need for building additional facilities.

As one looks at the enrollment figures above, he sees marked growth in the number of people being served. The noticeable growth between 1968 and 1972 is basically because of the opening of eight area vocational centers during that period of time. The growth is expected to grow but not at the same rate. The doubling of enrollments between fiscal year 1972 and fiscal year 1977 is mainly because of the expected increase in career education under part D—Exemplary funding. The increase in part B programs is based on the assumption that there will be adequate funding, programs and facilities available.

PUBLIC LAW 90-576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS":

a. Job Training Enrollments:

See exhibit A.

b. General Description:

The number of secondary programs has grown from 50 in fiscal year 1963 to 303 in fiscal year 1972.

1. The following programs (older) have been expanded on a statewide basis to meet the needs of business and industry: Automotive;

building trades; quantity foods; metal working; distribution; electronics; electricity; printing (offset).

2. The following programs that were new in secondary schools (since 1968) were developed statewide: Child care; nurse's assistant; clothing management; hospitality industry; horticulture; forestry/conservation/recreation diversified occupations (Level IV, mentally retarded).

3. The following programs were developed in limited numbers (1–2): Office machine repair; stone trades (granite monuments); dental assistant.

These programs are in addition to programs that have been available on a statewide basis, such as office occupations and agriculture production.

Some of the older programs have been reoriented or had their emphasis changed to meet the changing times. Examples:

1. Automotive training has shifted to the cluster concept internal combustion engines. This permits a student a wider choice because it allows him to get into small gas engines, diesel engines and aircraft engines instead of just automobile engines.

2. Only three broad programs in printing ("hot type" and offset) have been developed. Visual communications (offset) has been developed on a statewide basis because of the decreasing demand for personnel by shops that still use "hot type".

Adult courses are made available at the area vocational centers in the same job areas upon demand.

c. *Postsecondary Courses:*

1. *Enrollments*

1963	93
1968	147
1972	202
Projected 1977	202

2. *Description.*—The department of education legally has no responsibility for postsecondary programs other than the training of practical nurses (1-year program). A third school of practical nursing is now being supported financially. Facilities are being used at maximum. All postsecondary funds are being used to support these programs. A study is being conducted to determine the need for practical nurses.

The only public institutions offering associate degree programs in occupational education in the State at present are Vermont Technical College, the School of Allied Health Sciences at UVM and the nursing program at Castleton State College.

A Vermont Community College system has been operating under an OEO feasibility grant. The main thrust of program development was to meet the needs of the disadvantaged. The Community College of Vermont has had no operational funds for programs and, therefore, has had to operate with volunteer teachers and loaned facilities. The 1973 legislature appropriated a small amount of funds for 1974 program operation. To date the number of occupational programs has been small and none have been operated in area vocational center facilities.

d. *Disadvantaged Students*

1. ENROLLMENTS

	1963	1968	1972	Projected 1977
Regular			2,016	3,500
Special needs			65	150

2. *Comments.*—Vocational education within the school systems of Vermont has for years been serving educationally and socio-economically disadvantaged students. However, passage of the 1968 Amendments provided the motivation to identify the individuals and their needs so that specific programs or features could be provided for them.

Many of these students live in the northern part of the State which, for years, has been designated as a redevelopment area under the Economic Development Act (Department of Commerce).

Special programs under section 102(b) of the 1968 amendments have been developed to meet a partial need. Several of these programs have been:

"Alternative programs" to meet the needs of potential dropouts.
Developed for out-of-school youth.
Developed for students who are behind grade level.

Local personnel have only recently begun to understand how this group of people can be identified and how it can be done without causing embarrassment to any individual.

Because of the rural nature of the State, it is difficult most times to provide special programs in occupational training for a group of disadvantaged people because of the low numbers wanting any given trade area. Therefore, most individuals have had to be integrated into regular programs and then an attempt has been made to provide individual assistance as needed.

Emphasis is placed on service to the disadvantaged in adult courses. State funds are being provided to pay 100 percent of the instructional and supply costs to encourage area vocational centers to offer such courses.

e. *Handicapped Students*

1. ENROLLMENTS

	1963		1968		1972		Projected 1977	
	Secondary	Adult	Secondary	Adult	Secondary	Adult	Secondary	Adult
Regular			7		119		225	200
Special			90		196		200	

2. *Description.*—Priority has been given to development of facilities and program for the educable mentally retarded, level IV, as a part of the program at area vocational centers. The facilities consist of occupational laboratories and classrooms suitable to provide diag-

nosis and evaluation of occupational capabilities, basic skills training in a wide range of occupations and related training. Once the student's abilities have been evaluated he/she is kept in the laboratory for further skill development or put into the regular vocational programs and the "mainstream" of school activities. The facilities and programs have been developed and supported cooperatively with the Division of Special Education and pupil personnel services.

Area vocational centers offer services to students with other physical handicaps.

A pilot project has just been started to see if the staff members of D.O. labs can provide occupational evaluation on vocational rehabilitation clients. This will reduce the testing needed to be done outside the State.

Other programing:

Development of sheltered workshops to provide training/work for trainables in several areas of the State.

Training of work supervisors at the Vermont State Hospital so they can do a better job of providing better on-the-job training for patients prior to release.

An occupational education program for the hearing handicapped between Austine School for the Deaf and the Brattleboro Area Vocational Center. The students at the Austine School get orientation, explortaion and related instruction at Austine and a half day of vocational education training at the area vocational center.

Work trainer at Brandon Training School. This person spends time with patients helping them learn occupational skills through on-the-job training in institutional work stations.

Services to the handicapped adult through adult courses is constantly encouraged.

f. Adults

1. ENROLLMENTS

	1963	1968	1972	Projected 1977
Adult vocational education:[1]				
Preparatory			1,217	1,500
Supplementary	1,831	2,537	3,087	4,910
Disadvantaged handicapped			49	1,000
MDTA	209	541	[2] 1,588	600

[1] See exhibit A for breakout by job area.

[2] Includes 1,000 mecahnics in auto service facilities around the state in a spacial auto emission course.

2. *Comments.*—Data that is collected on enrollees in adult programs does not request information as to whether they are unemployed or employed. However, it is assumed that those enrolled in regular programs are employed because the local school district expects them to provide, through tuition, that portion of the cost of operating the program not reimbursed with State funds. Further, it is expected that many of those who are identified as disadvantaged are unemployed since the criteria for enrollment includes those items that would place

a person in that category or at least in the category of the working poor (underemployed).

Actually, most of the enrollees in the adult programs are enrolled in supplementary programs which provide training that will either update their present skills or add additional skills.

The funds which are used for adult vocational education are State nonmatching funds. State funds are used to support 50 percent of the instructors' salary in regular programs. In programing for disadvantaged and handicapped, State funds are used to support 100 percent of the instructors' salary and teaching supplies. These latter courses are supported at this level in order to encourage the local school districts, and particularly the area vocational centers, to provide services for the disadvantaged and handicapped.

Enrollments in adult vocational education courses fluctuate up and down with the economy. This is to be expected since each individual has to provide tuition (see para. 1).

Not many of the adult courses are set up in sequential order so that a person can proceed from basic to complex skills, and thereby, receive a continuity of training. This type of programing has been encouraged.

Several of the vocational centers have started to allow adults to enroll in day programs if there is space. This can be on a full or part-time basis.

A check of the enrollments, above, will show that the enrollments in adult vocational education courses are quite a bit higher than those in manpower (MDTA) programs.

g. Financing.

1. *Distribution of Funds.*—Section 3.27, part I, of the State plan provides the method for distributing part B regular and disadvantaged funds—see exhibit B.

The relative ability to pay is spoken to in section 3.26–3, part I, of the State plan (exhibit C) and in the rating sheet in section 3.27–2. In the latter item all high schools, which have vocational education programs, are listed with their multiplier which is obtained from the "Miller Formula" (used to calculate general State aid). The multipliers are divided into six equal parts. The multiplier (school) representing the least ability to pay receives the "5" rating on the rating sheet.

All of the postsecondary "setaside" is used to support the three licensed practical nursing schools in the State.

The handicapped set aside:

1. A portion is used, in conjunction with the special education and pupil personnel services unit, to support the diversified occupations (MR) programs in the area vocational centers.

2. The rest of the money is used:

(*a*) As "seed" money (usually 100 percent) to start special or model programs for the handicapped.

(*b*) Support special programs (usually 100 percent) such as the program for the deaf at Austin School.

(*c*) Provide special equipment where needed.

2. *Cities.*—There are no cities in Vermont with a population over 250,000.

3. *Rural Areas.*—There is no wide range in ability to pay in those local school districts offering vocational education. Therefore, there is no need for a special provision for providing funds for the "poorest rural area(s)".

Those with the least ability to pay for education receive more general State education aid through the Miller formula, which is based on the ability to pay, thereby, equalizing the burden of supporting education.

4. *Tuition/Transportation.*—The legislature annually appropriates monies to support one-half of the cost of tuition and transportation of students from sending schools.

h. Construction and Equipment.

1. FUNDING

	1963-68	1969-72	Projected 1973-77	Total
Federal	1,255,561	324,678	0	1,580,239
State	4,079,596	17,239,174	3,199,341	24,518,111
Local [1]	440,195	1,558,284	990,000	2,998,479

[1] LEA's not required to report local portions. Therefore, these figures are low—based on data available in SDE Office.

2. *Description.*—Prior to the Vocational Education Act of 1963, the development of vocational facilities was entirely dependent upon the initiative of local educational districts. Programs were established according to local interest and ability to finance facilities. Consequently, some communities in the State were able to provide reasonably comprehensive vocational education offerings to their residents while in many other communities no vocational education opportunities were available. With the motivation provided by the availability of Federal vocational funds for this purpose, a plan was developed to establish a statewide system of area vocational centers so located that any individual in the State would be no more than 15 miles distance from such a center. The area vocational programs were established as components of comprehensive high schools so that the total education needs of all enrollees might be effectively met. Facilities were planned to be adequate to provide a wide variety of occupational educational programs for secondary and adult enrollees. With the allocation of the Federal funds shown in the Table above, to initiate construction of these area vocational facilities the State of Vermont, since 1965, has appropriated and allocated over $24,500,000 to complete the 15 area vocational centers needed to establish the statewide system. Thirteen of these centers arê now in operation and the 14th center will be in full operation in September, 1974. Planning for the 15th center is still going on.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS:

a. *Exemplary Projects*

1. *Regular.*—

a. Enrollments

1968	None
1972	243
1977	None

b. Projects	*Students*
1. Vocational agriculture	78
2. Potential dropout	8
3. Vocational youth group officers leadership training	116
4. Motivate entrance into T & I teacher education	22
5. Exemplary program proposal writers guide to locating research findings	
6. Environmental course	19
7. Office occupational curriculum materials	
8. Individualized instruction curriculum materials (audio-visual tutorial)—2 projects	

2. *Career Education.*—

a. Enrollments

1968	None
1972	344
1977	8, 000

b. Projects	*Students*
1. World of work	180
2. Occupational orientation	164

3. *Comments.*—Exemplary moneys have been used to encourage local school district personnel to conduct innovative programs (for Vermont) that they could not otherwise attempt, because of budget restrictions.

A large majority of the projects above have proved successful and are being continued in the school which initiated them. Also, interest has developed in other schools to initiate similar activities.

This year all of the exemplary funds are going into career education projects.

The career education concept has spread throughout the State during the last year. It is gaining followers in increasing numbers, particularly among elementary teachers. Many of the new converts came as a result of contacts with teachers who had been involved in workshops during the last 12 months. The workshops will be continued with funds from other sources.

Exemplary projects will promote and develop the career education concept in grades K-12. It is expected that these funds will be used in this manner for the next several years.

b. Residential Vocational Education.

There is little need in Vermont for residential schools. The 15 area vocational centers pretty well cover the State. Also, it is anticipated that very few secondary students would be interested in residential type education.

The only situations that may call for a student to need residency away from home are the cases where a student might wish to attend one of the programs that are limited in number. Examples of these are stone trades and office machine repair.

c. Consumer and Homemaking.

1. Enrollments.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	0	2,498	71	5,361	1,210	61	348	86	21
Adult	0	600	0	246	39		24		
Total	0	3,098	71	5,607	1,249	61	372	86	21

2. *Description.*—All programs that wish to receive financial aid are required to submit an annual local plan. A great deal of work has been done by the teachers in converting their curriculum into behavioral objective terms.

Consumer education is emphasized continually and workshops have been conducted for teachers. A couple of them were held in conjunction with the extension service, University of Vermont. Inclusion of consumer education in adult courses (as it relates to that course) is required in order to receive financial assistance.

Inclusion of family life units are encouraged in secondary consumer and homemaking education programs. This office encourages adult courses for disadvantaged and handicapped persons by supporting them at a 100 percent level of the instructors' salary and supplies (state funds only).

The secondary enrollments above show a steady growth but do not show the growth in male enrollments. This grew from 131 in fiscal year 1968 to 606 in fiscal year 1972 to 902 in the fall of 1972.

State and local funds matched Federal funds for consumer and homemaking (secondary) at a 12 to 1 ratio during fiscal year 1972.

d. Cooperative Vocational Education.

1. ENROLLMENTS

	1967	1968	1972	Projected 1977
Part G			496	696
Part B	75	[1]	287	500

[1] Not available.

2. *Description.*—Vermont's cooperative vocational education got its start 60 years ago in cooperation with the machine tool industry in Springfield. Prior to the 1968 amendments a few distributive education programs provided training using this method. However, it was the 1968 amendments that provided the incentive for growth.

A check of the fiscal year 1972 statistics shows that:

(*a*) 25 co-op programs were operated.

(*b*) 21 schools were involved (10 area vocational centers; 1 juvenile correction institution).

(*c*) 4 schools offered special programs for identified disadvantaged.

(*d*) 453 different employers participated (637 offered to participate).

(*e*) 4 schools placed mentally retarded students.

(*f*) 86 different career objectives were involved.

There is strong support for cooperative vocational education because it makes the student's training more relevant.

A limiting factor for serving more students is the number of slots, especially in the more rural areas where there are a limited number and a variety of employers.

e. Work-Study Programs

1. Students served:

1963	0
1968	287
1972	126
1977 (projected)	150

2. *Description.*—The number of students served in fiscal year 1968 is greater than the number in fiscal year 1972 because there were more Federal funds in fiscal year 1968. There is need for increased funding to serve more students.

This program definitely provided needy students with funds which made it possible for them to remain in school.

Where possible, students worked at jobs that were related to the vocational program they were enrolled in. This gave an added dimension to their skill training.

f. Research and Training

1. The U.S. Commissioner's discretionary research moneys that have been channeled into career education are doing a great deal to develop instructional methods and materials and the means of implementing the concept. A great deal still needs to be done to change the attitudes of secondary teachers. Therefore, this year's money has been channeled into a grade 9–12 project.

2. The amount of research funds coming into the State are not large enough to institute any massive projects. However, the small projects that have been conducted have been of benefit to vocational education in Vermont. The funds have allowed the division to:

(*a*) Study factors related to the employment status of rural low-income adults.

(*b*) Gather data and information on vocational graduates back to 1967.

(*c*) Develop materials for recruiting and screening prospective students into selected preservice vocational teacher education programs.

These activities would not have been undertaken if Federal funds had not been available because of budget restrictions.

3. The most important project is the one entitled Career Development Patterns for Vocational Pupils Graduating or Leaving School, 1967–68–69–70.

The project was conducted by Dr. Gerald Fuller, chairman, University of Vermont, VOTEX Department, College of Agriculture.

The questionnaire for this project was prepared and field tested in fiscal year 1971.

The data for this project was collected in fiscal year 1972. The final report has been delayed because another dimension was added in the fall of 1972. Dr. Fuller was asked to convert the computer program to one that can be used on the computer at Central Data Processing. This is being done in order to provide, as a minimum, periodic follow-up of graduates in the future.

The major objectives of the project were to:

(*a*) Develop and refine a survey technique for following-up on vocational graduates.

(*b*) Develop a computer system data base that can be used as a takeoff for future use.

Both of these objectives were met successfully. However, the data received has not been analyzed at this point since it was not a part of the contract. This will be the next step.

STATE ADVISORY COUNCIL

a. Significant Contributions

The council has identified significant areas for improvement and development of vocational education. Some of these recommendations include:

1. Guidance.—

(*a*) That the vocational guidance consultant position be upgraded and filled.

(*b*) That the State Department develop a clear and concise position relative to guidance services, K–12.

(*c*) That all guidance counselors be considered to be and serve as vocational guidance counselors.

(*d*) An incentive system be established to encourage interest in guidance counselors to become more knowledgable about vocational-technical education.

(*e*) That the vocational guidance coordinator position serve all guidance counselors on an equal basis; that the position be a coordinator of resources in the geographic area and be responsible for orientation.

(*f*) That the support of funding for this position be increased to make it economically feasible to function in this manner.

2. That a career development program be developed for grades K–6.

3. That leadership be exerted to provide better coordination between the area vocational centers and the sending schools.

4. That efforts be taken to encourage the use of area vocational centers as resource centers as well as education centers.

5. That job placement and follow-up of students be encouraged as parts of the programs.

The above recommendations do not include this year's recommendations which were given to the State Board of Education within the last months.

b. Actions

The Department of Education has responded to each recommendation in a positive and functional manner.

The action on the recommendations listed above has been:

1. *Guidance.*—

(*a*) Accomplished. This person also became responsible for career education.

(*b*) That it has not been completely accomplished at this point.

(*c*) The point has been spoken to in the State plan for vocational education. However, the responsibility for guidance services belongs in another unit of the Learning Services Division. That unit has held workshops for counselors and this item has been emphasized.

(*d*) Negligible.

(*e*) That the position description has been rewritten in the State plan for vocational education emphasizing these points. The items are emphasized during monthly meetings between State and local staffs.

(*f*) That support of the salary of the vocational guidance coordinator was increased to 75 percent. This should free the person from his "home" school to work with personnel at sending high schools. (The local director's salary is supported at the 75 percent level also in order to free him from being "homebound".)

2. Activity in career education (K–12) which has increased over the past year to the point that three people will be working full-time on implementation.

3. On-going activities that continue to support this coordination.

4. That a great deal of progress has not been made to date.

5. A research project at the State level to develop a technique for gathering data on vocational students. Emphasis has been placed on job placement by all guidance counselors in all high schools. This latter activity will take time to accomplish.

SUMMARY AND RECOMMENDATIONS

a. Summary

Although Federal money were matched 4.9 to 1 for programing by State/local funds (fiscal year 1972) and more than 17 to 1 for construction and equipment over the 10 year period, the Federal dollars have acted as a stimulus to provide State and local funds.

In addition to serving more people, emphasis has been placed on service to the disadvantaged and handicapped as a result of the 1963 Act and its Amendments of 1968.

The availability of exemplary and research monies has made it possbile to provide funds to encourage innovation and program development. These kinds of funds are not normally available to a small state through its budget.

The emphasis on planning in the 1968 Amendments has forced state and local personnel to take a hard look at the direction vocational education should take and then to develop some plans to get there. This has brought some order to the total operation.

Cooperative vocational education is considered to be an excellent method of instruction for it lets the student see what will be required in his chosen occupation. It also brings business/industry and the school together. The funds appropriated in the 1968 Amendments allowed expansion of coop.

b. Recommendations

Section 3.5 of our fiscal year 1972 Federal report is attached—exhibit D. This part of the report speaks to the concerns and needs as the Vocational Education unit sees them. They have not changed appreciably during the year just passed.

c. Comments on the Better Schools Act of 1973. (H.R. 5823 and S. 1319)

The Congress of the United States of America has established a firm and long-standing commitment to the support of vocational education as a high priority national concern starting with the Smith-Hughes Act of 1917 and continuing through subsequent legislation.

Based on several features of the Better Schools Act of 1973 and some of the testimony provided by the secretary and staff of the Department of Health, Education and Welfare it can only be concluded that the enactment of this Bill will reduce the visibility of vocational-education nation-wide and will be detrimental to the continued development of vocational education as a program of national concern and high priority.

Features of the Better Schools Act of 1973 which are of particular concern are:

1. The state distribution of funds for vocational education is made on the basis of the state's portion of the national total of children ager 5-17. This totally discounts the need for funds to service the post-secondary and adult segments of the population with vocational education.

2. Funds identified for vocational education cannot be used for state administrative costs for vocational education. Funds for this purpose must be obtained from the amount alloted to the state for the purpose identified as "supporting materials and services". No monies are earmarked within the section of "supporting materials and service" for administration of vocational education. The funds to be alloted to the state for "supporting materials and services" is considerably less than the FY 1973 allotments through categorical federal funding to maintain essential services even without adding state vocational administrative costs to this purpose.

3. The language of the proposed bill would prevent the state from investing any funds in Consumer and Homemaking Education for youth and adults.

4. Funding for disadvantaged and handicapped programs has been deleted from vocational education purposes and placed under the purposes for disadvantaged and handicapped services. 75% of the funds for the disadvantaged must be used only for instruction in basic langauge and mathematics skills.

5. The federal vocational education funds available to a great majority of states in the nation, including Vermont, is less than the amount received in FY 1972 and in FY 1973 under authorization of the Vocational Education Act of 1963, as amended. Vermont would receive $401,000 less federal money under the Better Schools Act of 1973 than it received in FY 1972 under P.L. 90-576. According to the table published in the March 20, 1973 Congressional Record entitled Comparison 1973 Versus Educational Revenue Sharing 1974 only fourteen states would receive as much or more funds under this bill.

6. No provision is made for the continuation and support of the National and State Advisory Councils for Vocational Education. These Councils have been effective in annually evaluating vocational education and in assisting in the improvement and development of vocational education programs. They have served well in informing Congress and the public of the status and needs of vocational education nationally and have performed similar services at the state and local levels.

It would be desirable for States to have more discretion in the use of vocational education funds than exists under Public Law 90–576 but not to the extent and in the manner indicated in the Better Schools Act of 1973. A more desirable course of action would be continuation of categorical funding by means of block grants to States with only enough categorization to assure attainment of the national purposes of vocational education in every state.

d. Comments on the Reorganization and Regionalization of the USOE, DHEW

1. *Reorganization.*—The Education Amendments of 1972, Public Law 92–318, Title X, Part C, Sec. 1071, mandated the establishment of a Bureau of Occupational and Adult Education in the U.S. Office of Education with specified additional positions and their grades. The purpose was to provide administrative authority and leadership for occupational and adult education on a par with that for elementary, secondary, and higher education.

The position of Deputy Commissioner for Occupational and Adult Education has been filled but not all of the other specified positions have been. The FY 1974 proposed budget for staffing the Bureau anticipates that Congress will enact the Better Schools Act of 1973 and consequently makes no provision for program support in occupational areas nor for any specialized areas of funding called for in the Vocational Education Amendments of 1968. This implies that vocational and technical education will not be a major concern of the U.S. Office of Education. This course of action appears to be contrary to the intent of Congress in the passage of the Education Amendments of 1972.

2. *Regionalization of the U.S. Office of Education.*—Regionalization of the U.S. Office of Education, as proposed by the Secretary of the Department of Health, Education and Welfare, will result in a loss of national leadership in education by the U.S.O.E. Regional offices would report to the Secretary of D.H.E.W. and not to the Commissioner of Education. There would be no national leadership in vocational and technical education to establish national policies, identify national concerns, and to coordinate programs in the States. Federal educational policy should be focused on the U.S. Commissioner of Education and the U.S.O.E. should be organized and staffed to assume a strong leadership role in vocational and technical education.

The extent of regionalization that is proposed would add another layer of Federal bureacuracy in each of the 10 regions and contradict the policy of more State and local control. With authority in the Secretary's office to appoint personnel to the regional offices there is no assurance that vocational and technical education would be well served. Regionalization to the extent that technical and program services are available to the State should be maintained as it now exists. All regional services should, however; be coordinated nationally so that there will not be 10 separate and distinct vocational and technical education programs in the Nation.

It is desirable to provide for more State and local control of vocational education with more discretion in the use of funds available. The regional offices and the U.S. Office of Education should be charged with the responsibility of providing technical and program assistance and insuring that national concerns and priorities are adequately considered.

VERMONT VOCATIONAL EDUCATION ENROLLMENTS **EXHIBIT A** 5/25/73

Programs	1963 * Secondary	1963 * Adult	1963 * Post Secondary	1968 * Secondary	1968 * Adult	1968 * Post Secondary	1972 * Secondary	1972 * Adult	1972 * Post Secondary	PROJECTED 1977 # Secondary	PROJECTED 1977 # Adult	PROJECTED 1977 # Post Secondary
(X)		6,554			10,554			17,558			34,901	
GRAND TOTAL	3,998	2,312	244	7,061	3,137	355	12,785	4,549	224	25,555	9,144	202
		3,662			7,456			11,316			20,701	
Part B Total	1,587	1,831	244	4,563	2,537	356	6,811	4,303	202	11,855	8,644	202
Agriculture	773	332	--	810	129	--	1,261	128	--	1,690	275	--
Distributive	75	74	--	106	192	--	277	467	--	680	840	--
Health ##	--	67	93	--	22	147	189	35	202	320	61	202
Home Ec-Wage Earning	--	--	--	71	--	--	348	24	--	575	254	--
Office Occupations	--	--	--	1,481	312	--	1,820	422	--	3,860	800	--
Trades & Industry ###	739	1,358 ⊛	151	2,005	1,882	209	2,555	3,227	--	4,370	6,410	--
Disadvantaged **												
Regular	--	--	--	--	--	--	2,016	49	9	3,500	1,000	75
Special	--	--	--	--	--	--	65	--	--	150	--	--
Handicapped **												
Regular	--	--	--	7	--	--	119	--	1	225	200	--
Special	--	--	--	90	--	--	196	--	--	200	--	--
Part D - Exemplary	***			***			221		22	--		
Career Education	***			***			344			8,000		
Part F - Consumer & Homemaking												
Total	2,411	481		2,498	600		5,361	246		5,700	500	
Disadvantaged	--	--		--	--		1,[illegible]	39		1,550	275	
Handicapped	--	--		14	--		61	--		100	25	
Cooperative												
Part G	***			***			496			696		
Other	75			N/A			287			500		
Part H - Work Study	***			287 ⊕			126 ⊕			150		

* Annual Federal Reports
** Included In Part B Totals
*** No Funds

⊛ 46 apprentices + 312 technical
⊕ $31,117 FY 1968; $15,539, FY 1972

# FY 1974 State Plan - These figures assume proper funding.
## Post-Secondary - LPN Only
### Adult figures include Fire Fighters and Technical - No apprentices 1968 & after--Post-Secondary are enrollments at Vermont Technical College. No funds provided after FY 1968, therefore, enrollments not reported.

(X) **Unduplicated**

3.27 *Application of Criteria in Determining Priority of Local Applications.* All applications for funds will use the Local Plan or Local Proposal format (Part I, Section 3.22-2 and Appendix I). Applications from local education agencies will be reviewed, rated and scored for the purpose of establishing priorities and levels of funds for the federal funds received for this purpose. The following procedures will be followed:

3.27-1 *Application Approval.*

Unless a review of the application or other available data indicates that the school applying for funds is not of sufficent size to justify a program, or it does not meet the requirements of the Policies for Developing Vocational Education in Vermont, the application will be approved for consideration for funding. However, certain elements of the plan or application may not be included for funding if program standards are not met.

3.27-2 *Part B. Programs.*

a. Priority for Funds.

A committee of vocational education consultants will review each local plan or proposal for Part B programs and assign a point value to each program according to the procedures outlined in 3.27-2 B. The rating by each member of the committee will be combined to form a total rating for each application. The school with the highest rating will be assigned the highest rate of reimbursement with the lowest rating receiving the lowest reimbursement rate. From the federal funds available annually for allocation to local education agencies, a contingency fund will be established to be used to meet needs which cannot be anticipated in the local plans such as adult program to meet the needs of new industry or industrial change in a community, additional remedial or special needs of individuals enrolled in vocational programs, special personnel to work with vocational youth groups, expenses of personnel to state, regional or national conference, etc. Any indicated balance in this fund will be distributed to local education agencies on the basis of the criteria listed for the allocation formula. A minimum reimbursement rate will be assigned all approved applications with the variable rates indicated in 3.26-3 being added. The base allotment will be 40% of the federal funds available for allocation to local education agencies for purposes of this section of the Act. The balance of the federal funds, after the contingency fund has been deducted, will be allotted on the basis of the allocation formula which is based on the criteria listed in the rating sheet in Section 3.27-2B(2).

b. Priority Rating and Allocation Factors.

(1) *Base Allotment.*—The base allotment of 40% of the federal funds available is to be distributed among approved applications from local education agencies based on the number of equivalent full-time vocational instructors in relation to the total number of equivalent full-time vocational instructors in the state in each fiscal year. The allocation will be calculated as follows:

$$\frac{\text{Total Funds Available}}{\text{Total No. Full-Time Teacher Equivalents}} = \text{Dollar/Value/Full-Time Teacher Equivalent}$$

$$\text{Dollar Value/Full-Time Teacher Equivalents} \times \text{Full-Time Teacher} = \text{Equivalent/lea}$$

Allocation/Local Education Agency

(2) *Allocation of Balance of Funds—Needs Allotment.*—The balance (60%—contingency fund) of the federal funds available for allocation to local education agencies for Part B programs will be distributed on the basis of the score of each local application in relation to the total score of all applications in the state. The following score card will be used for scoring each application for Part B vocational education programs. All five major factors—namely: manpower needs, vocational education needs, programs, relative ability to pay, and excess costs—shall be rated in terms of the indicated maximum scores. Check each "factor" only once and multiply by the "weight" to obtain the score.

A priority rating will be calculated for each program or proposal.

FACTOR	WEIGHT	0	1	2	3	4	5	MAX. SCORE	SCORE
1. Manpower Needs (a) Percentage of state-wide jobs (b) Number of job vacancies (c) Type of occupations having largest job vacancies (d) Projected labor demand, expansion and replacement (e) New types of occupations (f) Impact of program on local, state, regional needs	4							20	
2. Vocational Education Needs (a) General unemployment rate (b) High youth unemployment (c) Number of dropouts (d) Needs of disadvantaged and handicapped (youth and adults) (e) Remedial programs (f) Percentage of graduates not continuing education (g) Percentage of [illegible] population [illegible] in area (h) Sufficient number of students to train	5							25	
3. Programs (a) A new program serving additional students (b) Impact of program on employment areas (c) Adequacy of program in relation to job competencies (d) Are learning situations realistic	5							25	
4. Relative Ability to Pay	5							25	
5. Excess Costs (a) Unexpected expenditures (1) summer employment (2) equipment purchase (3) released time (4) additional teacher(s) (b) Special programs (c) Excessive wage costs	1							5	
TOTAL SCORE	20							100	

To get score for each of the five factors: 0 is the lowest rating, and 5 is the highest. Multiply the weight by the rating (points).

The allocation of these funds will be calculated as follows:

$$\frac{\text{Total Funds Available}}{\text{Total Points of All Applications}} = \text{Dollar Value/Point}$$

Dollar Value/Point x LEA Score (points) = Needs Allocation

(3) Base Allotment + Needs Allotment = Total Allocation

c. Sample Allocation

As an example of the system and its operation, let us assume that $200,000 is available for distribution to 30 approved applications from local education agencies for secondary programs.

It is determined by previous experience that $10,000 will be needed as a contingency fund.

The funds available for the base allotment (40% of $200,000) is $80,000. This leaves (60% of $200,000 – $10,000) $110,000 for distribution according to relative ability to pay—Needs Allotment.

Let us assume that the 30 local education agencies employ the equivalent of 40 full-time vocational instructors. Also that the total points scored by all local education agencies is 8,000.

If *Community A* employs the equivalent of 4 full-time vocational instructors and scores 320 on all score cards, its allocation of funds would be:

Base Allotment

$$\frac{\$80{,}000}{40} \times 4 = \$8{,}000$$

Needs Allotment

$$\frac{\$110{,}000}{8{,}000} \times 320 = \$4{,}400$$

Total Allotment = $12,400

If *Community B* employes the equivalent of 8 full-time vocational instructors and scores 720 on its application, it would receive the following allotment:

Base Allotment

$$\frac{\$80{,}000}{40} \times 8 = \$16{,}000$$

Needs Allotment

$$\frac{\$110{,}000}{8{,}000} \times 720 = \$9{,}900$$

Total Allotment = $25,900

The same criteria and factors will be considered when reviewing applications covering other portions of Part B of the Act. Applications for Post-Secondary and Adult Programs will be reviewed on an individual program basis and funds allocated according to need applying the criteria Sec. 3.26.

The State Board will determine the local education agency's ability to provide the resources necessary to meet the vocational education needs in the communities or areas serviced by such agencies. Relative ability of the local education agency will be determined by comparing the area or community's equalized grand list per pupil in Average Daily Membership to the State's Equalized Grand List per public in Average Daily Membership. This data is compiled annually by the statistical services section of the Department of Education as a base for distributing general state aid for education.

3.26-4 *Relative Costs of Programs, Services and Activities.*

The State Board shall give due consideration to the cost of programs, services and activities the local education agency provides which is in excess of the cost which may be normally attributed to the cost of education in such local education agencies. Information concerning comparative costs will be obtained annually in the Local Plan for Vocational Education.

The State Board staff will review each Local Plan for Vocational Education to determine if there are conditions relating to costs of programs, services and activities which require costs in excess of those normally attributed to the cost of similar education in local educational agencies. When such excess costs are justified in the Local Plan additional financial support will be provided in an effort to offset the excess costs to the extent that state and federal funds are available in any fiscal year which can be used for this purpose. It is anticipated that price and wage levels and other economic conditions are uniform enough throughout the state that these factors relating to costs of teachers' salaries, construction and equipment will not warrant special consideration between schools. Costs of pupil transportation may in some cases be considered excessive and merit special consideration.

3.26-5 *Other Criteria of the State.*

The criteria listed in Sections 3.26-1 through 3.26-4 of this State Plan do not preclude the use of special criteria should the need arise. The special criteria would be established to insure that vocational education is available to all persons in all communities that may not meet the specific criteria. Should there be a need to use special criteria, they will be submitted as an amendment to this plan.

Individual programs by occupational field, type of persons or geographical location served, may be financed at any pre-determined rate using federal funds allotted under Part B of Act in any fiscal year provided that on a state-wide basis each federal dollar is matched by not less than one dollar of eligible state and/or local funds.

3.5 *Concerns, Needs and Problems.*

3.5-1 *Congressional Action Needed.*

A. There still needs to be full funding of the Act in order to bring about the impact that the Congress was looking for.

B. There is urgent need to provide funding early in the fiscal year. The delay causes many problems in planning which is in contrast to what the Congress has been pushing for. For planning purposes it would be much better if the Congress would provide funding one year in advance.

C. The reimbursement process (to local schol districts) has been difficult one to deal with. Even though the State was able to develop its own method (Section 3.27, Part I, State Plan) the Local Plan rating system that was developed has caused many problems and hard feelings at the local level. Attempts at finding a formula have not been successful because of the criteria that must be used in developing a formula. Things such as Manpower needs, vocational needs, and excess costs are difficult to put into meaningful mathematical factors which, in turn, can be plugged into a formula. The whole thing is compounded further by the lack of data—at least in a form that can be used. The 1968 Amendments allot federal money mostly on population basis. The Congress should review this section to see if there is not an easier way to allot the money to the local school district.

D. Monies for Career Education need to come from additional sources than just Vocational Education. The Congress should either appropirate money for Career Education or see to it that other acts (Education-including Higher Education) are required to release funds for this important undertaking. This is crucial because this State is deeply committed to the concept and has moved rapidly. Funds are needed for training and curriculum development (just two important areas). See Section 3.3 of this Part.

3.5-2 *Congresisonal, U.S. Office of Education and State Action Needed.*

A. There is still a need for job surveys and manpower need studies on a state-wide basis. The data is needed for program planning purposes.

B. Occupational counseling and guidance for jobs is still weak and there needs to be attitudinal changes and training before there will be progress in the right direction—for the benefit of kids. For too many guidance personnel, the measure of success is the number of students enrolled in college. This means money.

C. There has still not been an improvement in the drop-out rate. Local reports indicate that the figures reported may not be accurate or indicate drop-outs in the true sense. Studies need to be undertaken to determine the

[redacted]

[redacted]

true picture. If indeed, there are significant numbers of students leaving school then programing must be provided to meet their needs.

D. There were further gains in public information during the past year. However, more needs to be done. There are parents and students who still do not know what vocational education is all about and where it is taking place.

E. The pay restriction for Cooperative Vocational Education (Part G) should be reviewed. It has caused some problems in smaller communities that in turn have small industries or marginal businesses that can't afford the price.

3.5-3 *U.S. Office of Education and State Action Needed.*

A. Inter-agency cooperation made a few small gains during the last year but nothing in the magnitude that is needed. Several of the federal agencies don't set a very good example.

B. The reporting system has not improved. The local superintendents are up in arms ver the massive amount of paper that is required for vocational education activities and the large number of reports. Federal report forms still continue to be changed too frequently. It takes at least two years to acquaint local personnel with the reporting format and information needs. Just as they are begining to see the light the forms change.

C. The obligation feature of OE Forms 3129 and 3131 is still causing problems in tracking dollars as they are carried over (Carry-over feature good).

3.5-4 *State and Local School District Action Needed.*

A. A couple of additional Centers got their Administrative Advisory Committees into some action this last year. However, a few Centers still did not activate or use their Committee in a constructive way. More effort is needed.

These committees are crucial to the sending schools because it is the only method they have to provide input for the Center's operation.

B. Emphasis on use of advisory committees needs to be continued. Active and functional committees are used and used in a constructive way. Work needs to be done with several of the State Advisory Committees too. There is need at the state and local level to revamp and activate.

C. There needs to be more involvement of business, industry and the community in the operation of the Centers and the programing for vocational education.

D. State and Local personnel are beginning to become aware of the disadvantaged and handicapped children but more effort is needed in this area.

E. Planning for Canaan and Manchester did not progress during the last year even though assistance was offered. This continues to be a priority.

F. There wasn't much forward progress in Franklin County. A study committee was formed and will report in early FY 1973. See Sections 1.2-1 and 1.5-1. This activity needs to move forward with haste because of the increased cost that occurs each and every month.

G. Now that most of the Centers are in operation there needs to be concerted effort and activity in curriculum development. There has been a start in developing behavioral objectives at the local level with the help of state staff. This needs to be continued and even expanded. This is needed for improved programs for students and a method of evaluation of programs.

H. A plan needs to be developed with the local personnel which will spell out ways in which the state staff can be of assistance to local staff members. The plan must spell out actions that will use staff time efficiently.

I. Replacement of worn or old equipment is crucial or becoming so in these Centers that opened in 1967 or those schools or Centers that had limited programs before that time. Some state funds became available during FY 1973 to assist at a 50% level. Local school districts and the State will have to provide at least some funds on a continuing basis to maintain quanlity and up-to-date equipment.

J. Several of the school districts provided very little money for supplies, training materials and the like even though they budgeted more than was expended. This has limited program quality.

K. Several of the Centers are nearing capacity—even some which have been open a year. This calls for planning to determine what methods can be used to increase the service to the additional students without adding more bricks and mortar.

L. In some instances there are unrealistic licensing requirements (i.e. electricians) that are turning students off. These should be reviewed to put them in order.

3.5-5 *Local Action Needed.*

A. The need for Vocational Guidance Coordinators has still not been accepted in several of the schools housing the Area Vocational Centers. This feeling has not changed, even with increased funding of the position from State monies. This position is very important to the sending schools in order to make sure that proper services are getting to their students. The placement duties are also very important to students.

B. There is still need for teacher (academic and elementary and junior high) atitude changes toward vocational education. This means that there must be a strong informational effort to remove "dumb kid" label and "dumping" ground approach.

C. Expanded use of facilities is needed—especially evening, weekends and summers. Other agencies are becoming aware that the programs capability and facilities are there so maybe will be a change.

D. Continued and increased involvement with the disadvantaged and handicapped is needed.

E. Expanded placement services for students going to work after high school is needed—to put it on a par with services for college students.

F. More emphasis on graduate follow-up is needed so that he can provide evaluation on programs and, therefore, give direction to change.

G. Each Area Vocational Center needs to develop a strong public information program to reach all the communities in its circle of service.

H. More effort needs to be put into starting and operating strong youth clubs. This include scheduling time during class for related activities.

VIRGINIA

State Director—George S. Orr, Jr.

INTRODUCTION

The Vocational Education Act of 1963 and the 1968 amendments expressed an unprecedented vote of confidence in vocational education by the 90th Congress which we in Virginia have worked hard to merit. Since the passage of the Vocational Act, the total enrollment [1] in vocational education in Virginia has greatly increased from 144,759 to 333,545, an increase of 188,786.

The following breakdown shows total vocational enrollments for fiscal years 1963, 1968, 1972 and 1977 (projected). The figures below include all persons in vocational courses, whether the courses were funded from Federal, State, or local resources.

TOTAL VOCATIONAL EDUCATION ENROLLMENT IN VIRGINIA

	Fiscal year				Percent of increase 1963-72
	1963	1968	1972	1977 projected	
Secondary	88,461	122,764	191,336	226,669	116
Postsecondary	2,723	9,993	38,807	13,256	591
Adult	53,575	86,544	123,352	146,327	130
Total	144,759	219,301	333,545	406,252	130

PUBLIC LAW 90-576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

The remainder of the report follows the format used in authorizing programs under the Vocational Education Act as amended in 1968. This section is concerned with the uses of the basic State grants provided under Part B of that Act.

a. Job Training Enrollments

This subsection shows the job training enrollments by job training area [2] and by high school, posthigh school and adult for fiscal years 1963, 1968, 1972, and 1977 (projected). These enrollments include all persons enrolled in courses provided with Federal funds under part B.

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[1] Includes vocational programs in agriculture, business and office, distributive, consumer and homemaking, home economics gainful (1968, 1972, 1977 only), and trade and industrial education. Virginia did not use VEA 1963 money until fiscal year 1964.

[2] See table "Enrollment in Vocational Education Programs."

JOB TRAINING ENROLLMENTS IN VIRGINIA, PART B FUNDS

	Fiscal year				Percent of increase 1963-72
	1963	1968	1972	1977 projected	
Secondary	88, 461	85, 366	102, 366	186, 669	157
Postsecondary	2, 723	9, 993	18, 807	33, 256	591
Adult	49, 442	80, 638	114, 039	146, 327	131
Total	140, 626	175, 997	235, 212	339, 853	673

b. General Description

Since 1963, offerings in vocational education have been expanded to include the following courses in newer job fields:

1. Data processing has been added and expanded to serve students in Virginia's metropolitan areas. The program is designed to prepare students for jobs as operators of data processing equipment and in data preparation, 2,176 students enrolled in 1972.

2. Reprographics is an area being developed to prepare students to work in duplicating centers for "inhouse" printing. Word processing is being included as a part of this new curriculum. Only one pilot program is currently underway, however, it will be the basis for other programs in Virginia, 20 students enrolled.

3. Clerical accounting occupations, one of the larger areas of office work, has been developed into a specialized occupational program. The training is for jobs that are numerous in metropolitan areas, 2,842 students enrolled.

4. Medical and legal office procedures curriculums have been developed to meet the needs in several metropolitan areas. Only a large program of business and office education can support these specialized offerings. They are currently being offered at vocational centers, 76 students enrolled.

ENROLLMENT IN VOCATIONAL EDUCATION PROGRAMS COMPARISON OF 1963-64, 1964-65, 1965-66, 1966-67, 1967-68, AND 1968-69 DATA

Programs	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
Agriculture [1]	22, 209	20, 868	20. 181	24, 296	24, 526	24, 424
Secondary	13, 167	13, 011	12, 861	16, 144	16, 566	16, 421
Postsecondary						
Adult	9, 042	7, 857	7, 320	7, 463	7, 533	7, 499
Special Needs				689	427	504
Distribution	22, 258	30, 642	30, 127	32, 011	45, 861	36, 386
Secondary	3, 366	5, 483	7, 599	8, 867	9, 152	9, 458
Postsecondary	77	79	100	198	441	253
Adult	18, 815	25, 020	22, 389	22, 877	36, 044	26, 548
Special Needs		60	40	69	224	127
Health	1. 334	1, 840	2, 021	2, 368	2, 808	2, 941
Secondary	190	439	409	520	771	1, 332
Postsecondary	850	989	1, 097	1, 385	1, 225	772
Adult	294	412	502	440	711	762
Special needs			13	23	101	75
Home economics [2]	38, 633	40, 251	39, 259	47, 206	46, 113	50, 109
Secondary	35, 151	36, 073	36, 034	39, 111	38, 076	40, 714
Postsecondary				85	80	71
Adult	3, 482	4, 178	3. 225	6. 761	6. 119	6. 640
Special needs				1, 249	1, 838	2, 684

Footnotes at end of table.

ENROLLMENT IN VOCATIONAL EDUCATION PROGRAMS COMPARISON OF 1963-64, 1964-65, 1965-66, 1966-67, 1967-68, AND 1968-69 DATA—Continued

Programs	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
Office	30, 373	32, 407	38, 224	45, 988	58, 351	62, 595
Secondary	28, 462	29, 122	33, 201	37, 722	44, 572	45, 572
Postsecondary	227	300	576	1, 667	2, 963	4, 077
Adult	1, 684	2, 985	4, 306	6, 530	10, 647	12, 725
Special needs			141	69	169	221
Technical	2, 304	1, 920	2, 312	2, 904	4, 217	4, 542
Secondary	60	112	157	69	177	1, 065
Postsecondary	914	1, 019	1, 460	1, 876	2, 830	2, 162
Adult	1, 330	789	695	959	1, 210	1, 315
Special needs						
Trades and industry	21, 846	24, 934	25, 062	33, 613	37, 425	41, 644
Secondary	6, 494	6, 687	7, 031	8, 163	9, 720	10, 957
Postsecondary	1, 335	1, 342	1, 699	1, 541	2, 454	1, 761
Adult	14, 017	16, 853	15, 717	23, 009	24, 280	27, 301
Special needs		52	615	900	971	1, 625
Totals	138, 957	152, 862	157, 186	188, 386	219, 301	222, 641
Secondary	86, 890	90, 927	97, 292	110, 596	119, 034	125, 519
Postsecondary	3, 403	3, 729	4, 932	6, 752	9, 993	9, 096
Adult	48, 664	58, 094	54, 153	68, 039	86, 544	82, 790
Special needs		112	809	2, 999	3, 730	5, 236

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[1] Enrollment in off-farm occupations totaled: 1964-65, 3,839 or 18.4 percent; 1965-66, 6,794 or 33.7 percent; 1966-67, 4,783 or 19.7 percent; 1967-68, 4,695 or 19.1 percent; 1968-69, 4,503 or 18.4 percent.

[2] Enrollment in gainful occupations totaled: 1964-65, 326 or .8 percent; 1965-66, 727 or .9 percent; 1966-67, 2,025 or 4.3 percent; 1967-68, 1,400 or 3.0 percent; 1968-69, 1,587 or 3.2 percent.

ENROLLMENT IN VOCATIONAL EDUCATION PROGRAMS, COMPARISON OF 1963-64, 1964-65, 1965-66, 1966-67, 1967-68, 1968-69, 1969-70, 1970-71, AND 1971-72 DATA

Programs	1969-70	1970-71	1971-72
Agriculture	26, 457	28, 557	28, 878
Secondary	19, 515	21, 731	21, 976
Postsecondary	32	90	77
Adult	6, 910	6, 736	6, 825
Disadvantaged	(1, 293)	(1, 679)	(1, 373)
Handicapped			
Distribution	39, 463	44, 324	53, 352
Secondary	12, 943	14, 067	14, 105
Postsecondary	215	704	328
Adult	26, 305	29, 553	38, 919
Disadvantaged	(1, 440)	(1, 538)	(1, 840)
Handicapped		(88)	(87)
Health	2, 787	4, 483	5, 122
Secondary	1, 575	2, 514	1, 468
Postsecondary	778	1, 348	2, 224
Adult	434	621	1, 430
Disadvantaged	(112)	(516)	(649)
Handicapped		(146)	(135)
Home economics	91, 893	92, 180	101, 147
Secondary	84, 624	85, 295	91, 407
Postsecondary	27		1
Adult	7, 242	6, 785	9, 739
Disadvantaged	(4, 175)	(31, 524)	(33, 549)
Handicapped[1]		(371)	(1, 869)
Office	61, 372	61, 794	60, 865
Secondary	44, 669	43, 103	42, 801
Postsecondary	3, 492	6, 294	5, 521
Adult	13, 211	12, 397	12, 543
Disadvantaged	(19, 999)	(2, 478)	(2, 018)
Handicapped		(212)	(290)

Footnotes at end of table.

ENROLLMENT IN VOCATIONAL EDUCATION PROGRAMS, COMPARISON OF 1963-64, 1964-65, 1965-66, 1966-67, 1967-68, 1968-69, 1969-70, 1970-71, AND 1971-72 DATA—Continued

Programs	1969-70	1970-71	1971-72
Technical	4,172	4,483	4,524
Secondary			
Postsecondary	2,309	3,190	2,913
Adult	1,863	1,293	1,611
Disadvantaged		(336)	(122)
Handicapped			2
Trades and industry	47,213	66,083	79,006
Secondary	16,559	21,864	22,356
Postsecondary	2,420	4,270	4,460
Adult	28,234	39,949	52,190
Disadvantaged	(2,649)	(6,662)	(5,817)
Handicapped		(2,583)	(3,275)
Special programs			3,489
Secondary			111
Postsecondary			3,283
Adult			95
Disadvantaged			(541)
Handicapped			
Total	273,357	301,904	336,383
Secondary	179,885	188,674	194,224
Postsecondary	9,273	15,833	18,807
Adult	84,199	97,397	123,352
Disadvantaged [2]	(11,556)	(44,733)	(45,909)
Handicapped		(3,400)	(5,658)

[1] Includes programs less than 8th grade.

[2] Includes 2828, 102B.

5. Child care services provide opportunities for entering employment in occupations related to the care of children; i.e., nursery school aide, playground assistant, teacher's aide, child care center aide, and professional baby sitter, 107 enrolled.

6. Clothing services prepare students for entry jobs in clothing occupations and related jobs; i.e., alterer, tailor, custom dressmaker, stitcher, factory sewer, and sales clerk, 610 enrolled.

7. Food services prepare students for entry jobs in foods and related occupations; i.e., salad maker, sandwich maker, waitress or waiter, assistant cook, baker, caterer, or food service manager, 430 enrolled.

8. Home furnishing services prepare students for occupations in the construction of slipcovers and draperies and other entry jobs in home decoration, 66 enrolled.

9. Home and institutional services, prepare students as institutional housekeeping aides, appliance demonstrators, and homemakers assistants, 14 enrolled.

10. Homemakers' assistant services prepare mature women to manage homes when the homemaker is ill, to care for young children, to assist the elderly in the home, and to meet other home and family needs, 27 enrolled.

11. Fashion merchandising, 842 enrolled.

12. Food distribution, 2,664 enrolled.

13. Petroleum marketing, 230 enrolled.

14. Checker education.

15. Floristry diploma program, 261 enrolled.

16. Hotel-motel diploma program, 1,198 enrolled.

17. 50-hour preemployment training for unemployed persons, 7,170 enrolled.

18. Franchising, 935 enrolled.
19. Firemen's adult training, 30,872 enrolled.
    - *a.* Fire officers' institute.
    - *b.* Fire department management.
    - *c.* Supervisory methods.
    - *d.* Tactics and leadership.
    - *e.* Petroleum firefighting.
    - *f.* Transportation hazards.
    - *g.* Aircraft crash/rescue.
    - *h.* Forest fire prevention and control.
    - *i.* Fire cause conference.
    - *j.* Fire prevention.
    - *k.* Arson investigation.
    - *l.* Cardiopulmonary resuscitation.
    - *m.* Vehicle extrication.
    - *n.* Industrial fire safety.
20. Agricultural business, 190 enrolled.
21. Agricultural machinery service, 507 enrolled.
22. Natural resources management, 260 enrolled.
23. Ornamental horticulture, 1,045 enrolled.
24. A new course entitled "Industrial Maintenance Mechanic" has been added, the purpose of which is to provide an all-around mechanic for modern industry.
25. A cluster type program combining from two to four related trades. An example is the building trades program in which skills generally learned in masonry, carpentry, plumbing and electricity are combined into one course.
26. The program in printing has been expanded, placing a majority of interest upon the modern techniques of printing.

c. Postsecondary courses

This subsection shows a breakdown of the postsecondary enrollments listed in "A" above according to enrollments in community colleges. The community college system was inaugurated in 1965 and has grown to 22 institutions located in all geographical areas of the State. The community colleges absorbed the postsecondary area vocational schools listed under fiscal year 1963.

POSTSECONDARY ENROLLMENTS IN VIRGINIA USING PUBLIC LAW 90-576, PART B FUNDS

	Fiscal year				Percent of increase or decrease 1963-72
	1963	1968	1972	1977 projected	
Community college	1,450	9,605	13,807	30,000	852.2
Other [1]	77	388	5,040	3,256	6445.4
Total	2,723	9,993	18,807	33,256	590.7

[1] Woodrow Wilson Rehabilitation Center and licensed practical nurse training programs located in hospitals.

d. Disadvantaged Students

This subsection includes enrollments by regular and special needs programs for fiscal years 1963, 1968, 1972, and 1977 (projected).

DISADVANTAGED ENROLLMENTS IN VIRGINIA USING PUBLIC LAW 90-576, PART B FUNDS

	Fiscal year			
	1963	1968	1972	1977 projected
Regular	([1])	3,772	10,525	13,511
Special needs			2,838	10,000
Total		3,772	13,363	23,511

[1] Not available.

e. Handicapped Students

This subsection includes enrollments by regular and special needs programs for fiscal years 1963, 1968, 1972, and 1977 (projected).

HANDICAPPED ENROLLMENTS IN VIRGINIA USING PUBLIC LAW 90-576, PART B FUNDS

	Fiscal year				Percent of increase 1963-72
	1963	1968	1972	1977 Projected	
Regular	366	1,258	3,894	10,034	963
Total	366	1,258	3,894	10,034	963

f. Adults

This subsection includes a breakdown of the adult enrollment listed in "A" above according to those in programs who are unemployed and employed and in need of job training, retraining, or upgrading.

ADULT ENROLLMENTS IN VIRGINIA USING PUBLIC LAW 90-576, PART B FUNDS

	Fiscal year				Percent of increase 1963-72
	1963	1968	1972	1977 Projected	
Preparatory	([1])	20,299	30,958	40,000	
Supplementary	([1])	66,245	84,342	87,000	
Other			8,037		
Total	53,575	86,544	123,352	146,327	130.2

[1] Not available.

g. Financing

Under the basic program provisions in part B, a distribution formula has been established for allocating vocational funds that takes into consideration six factors, including wealth per pupil, per capita income, percent of unemployed, percent of high school dropouts, manpower needs, and cost of vocational education.

It provides that those local school divisions with the greatest need, according to the above six factors, receive the larger percentage of Federal vocational funds. Under the other parts of the amendments, programs have been funded within the percentage amounts indicated in the law. Special programs for the disadvantaged, exemplary, and cooperative 100 percent reimbursement; research 90 percent reimbursement; and work-study 80 percent disbursement.

(ii) The following tables show 1972 expenditures by location showing dollar amounts and percentages of Federal and State funds going to Virginia cities with populations in excess of 250,000 and to economically depressed areas.

FISCAL YEAR 1972 EXPENDITURES TO CITIES IN VIRGINIA WITH POPULATION IN EXCESS OF 250,000

	Total Federal dollars	Total State and local dollars	Federal percentages	State/local percentage	Relative percentage of State's population
Norfolk	414, 558. 28	1, 532, 505. 39	3.0	5.0	6.6
Fiscal year 1972 espenditures to the poorest rural areas in Virginia					
	3, 913, 450. 00	11, 171, 180. 00	31.9	34.1	18.3

h. Construction and Equipment.

This subsection shows investments for construction and equipment from Federal sources for fiscal 1963 through 1968, 1969 through 1972, and 1973 through 1977.

INVESTMENTS IN VIRGINIA USING PUBLIC LAW 90-576, PART B FUNDS

	Construction (fiscal year)			
	1963	1968	1972	1977 projected
Federal		2, 636, 345	2, 114, 174	6, 000, 000
State-local	(1)	4, 750, 102	2, 974, 774	6, 000, 000
Total		7, 386, 447	5, 088, 948	12, 000, 000
	Equipment (fiscal year)			
Federal	0	1, 466, 056	1, 235, 128	2, 150, 000
State	(1)	682, 691	137, 236	800, 000
Total		2, 148, 747	1, 372, 364	2, 950, 000

[1] Not available.

Requests for aid for construction and equipment far exceed present resources. Construction projects are running three or more years behind need and funds for equipment are used to purchase new equipment having virtually one for maintenance and replacemet. Sixty-five percent of the schools have indicated a need for new or replacement equipment.

VEA equipment funds have been used to encourage localities to update present programs and to begin programs for new occupations.

Prior to fiscal year 1964, primarily local funds were used for equipment with the State adding a nominal amount. Only the wealthiest localities had anything approaching up-to-date equipment and none had adequate facilities. More recently, however, a significant number of local school divisions have built outstanding vocational facilities with local funding and they then look for Federal-State assistance in equipping these facilities.

This section is concerned with the categorical programs authorized under the Vocational Education Act as amended in 1968.

a. Exemplary Programs and Projects.

Exemplary projects were started in 1970. Since that time, 14 projects have been funded.

The majority of the programs were centered around vocational guidance and counseling for careers with motivation to remain in school and become occupationally trained. Innovative teaching methods were implemented in these projects and one project established an innovative program in office education affecting the training of over 500 students. One interesting program is using "achievement motivation" in working with the disadvantaged.

There are currently (fiscal year 1972) six projects underway serving 376 students.

b. Residential Vocational Education.

None.

c. Consumer and Homemaking.

Consumer and Homemaking programs are established as electives in every secondary school in the State of Virginia with increasing enrollment each year. The four family living acreas of the revised consumer and homemaking curriculum guide are: Individual development in the family; cultural development in the family; consumption of goods and services in the family; and, management in the family. A small portion of part F money is used to reimburse teacher trainer salaries for preservice and inservice education; and, the rest of part F money is used totally to reimburse on the consumer and homemaking programs in those school divisions identified as economically depressed.

The following shows enrollments in consumer and homemaking education for secondary and adult programs for fiscal 1963, 1968, 1972. Also shown is a breakdown for gainful employment and for the disadvantaged and the handicapped.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS—ENROLLMENTS

[Grades 8-12 (36 weeks per year)]

	1962-63 (fiscal year 1963) vocational home economics	1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
		Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	47,200	51,415	678	57,577	20,855	1,749	1,960	1,568	98
Adult	4,133	5,906	213	9,313	2,328	12	426	352	9
Total	51,333	57,321	891	66,890	23,193	1,761	2,386	2,920	107

d. Cooperative Vocational Education

The following information shows enrollments in cooperative programs for fiscal years 1963, 1968, 1972, and 1977 (projected). Part G programs were not funded until fiscal year 1970.

COOPERATIVE PROGRAM ENROLLMENTS IN VIRGINIA, USING PUBLIC LAW 90-576—OTHER FUNDS

	Fiscal year				Percent of increase 1963-72
	1963	1968	1972	1977 projected	
Regular	5,314	14,790	18,245	20,000	71
Part G			1,258	1,488	
Total	5,314	14,790	19,503	21,488	267

There are several types of cooperative education programs offered in the secondary and post secondary schools in agriculture, office, distributive, gainful home economics and trade and industrial education. Through part G funds, 28 cooperative programs for the disadvantaged have served more than 2,000 students. Agri-business programs are cooperative and more students are using placements in farm positions other than on the home farm. Cooperative programs in all fields continue to expand for both regular students and the disadvantaged.

e. Work Study Programs

The following numbers of students were served in work study programs in fiscal years 1963, 1968, 1972, and 1977 (projected).

WORK-STUDY ENROLLMENTS IN VIRGINIA, USING PUBLIC LAW 90-576—OTHER FUNDS

	Fiscal year				Percent of increase 1963-72
	1963	1968	1972	1977 projected	
Secondary		658	772	1,750	

F. Research and Training

Since the appropriation of funds under Section 3 of the Vocational Amendments of 1968, 10 research projects have been approved. The following are examples of projects now in operation:

1. VERS: Vocational education reporting system. A project to develop a statewide computerized reporting system for vocational education in Virginia.
2. VEEP: An evaluation system for vocational education in Virginia. An umbrella project designed to evaluate the total vocational activities in Virginia. The project will be field tested during fiscal year 1974.
3. Development of a learning resources center for vocational education in Virginia. The project will be expanded during phase III to coordinate curriculum development for all program areas and for the State institutions preparing vocational teachers.

Research and development funds from vocational education sources have enabled the community college system in Virginia to conduct three basic types of studies related to students and educational programs in vocational or occupational-technical areas:

a. To identify numbers and sources of disadvantaged and handicapped potential students.

b. To survey former occupational-technical students at community colleges.

c. To develop and identify effective instructional practices with remedial or developmental studenst who will subsequently enroll in occupational-technical areas.

STATE ADVISORY COUNCIL

The State Advisory Council was organized in March 1969. Since that time, the council has evaluated the program of vocational education in light of manpower needs and social demand as presented to the council through public hearings, reports of various agencies, and on-site visitation to vocational education programs in the area vocational centers (secondary) and the community colleges (post secondary).

The council's executive director attends all meetings of the State Board of Vocational Education and speaks to the needs of vocational education. He is also directing studies of various aspects of vocational education. The council approves the State plan.

The council makes recommendations to the State board for the improvement of vocational education and the board responds to these recommendations. Examples of these recommendations are given below. The full text for the past year is attached.

a. Recommendation

That consideration again be given to establishing and implementing a research coordinating unit which would be attached to an appropriate university or to a State agency, and that the State appropriate sufficient resources to conduct continuous research in and for specific fields in occupational education. A professional person competent in research procedures should be assigned to the advisory council's headquarters staff.

Response.—There is to be established in fiscal year 1972 a component for research in vocational education as a part of the State Department of Education. This research component will work cooperatively with the Division of Educational Research and Statistics of the State Department of Education. See section 5.0 of part I, section 5.61 of part II, and section 2.44 of part III of this plan.

b. Recommendation

It is the imperative that the State Department of Education and local school systems provide for all persons a program of vocational and technical education so that on one will leave school without a saleable skill or adequate preparation for continuing education.

Response.—One of the purposes of education as stated in the "Standards of Quality for Public Schools in Virginia" is: "To acquire skills and knowledge needed for education beyond high school or for employment." These standards also specify that a school division must provide training in skills needed for employment for all students who plan to enter the world of work or have a plan by June 30, 1973, to provide such training.

Response.—Increased staff positions in vocational education were presented as a part of the Department of Education budget requests for 1972–74. There were proportionate to those allotted other divisions in the Department of Education and represent those positions identified as priority needs.

SUMMARY AND RECOMMENDATIONS

The following recommendations for improvements in Federal programs are based upon Virginia's experiences with receiving and administering such funds:

a. Late and uncertain funding of Federal programs reduce the effect such funding should have on new and innovative programs. The Tydings amendment has given greater flexibility in utilizing funds, especially for the disadvantaged, and should be continued.

b. Additional Federal funds will generate several times their amount in State and local funding. Such funds are needed to support the growing enrollments in regular programs for instructional personnel, construction of facilities, and equipment.

c. Categorical funding for vocational education should be continued to give stability to the program.

d. Funding for consumer and homemaking should be continued through vocational education. Increased appropriations are needed to support the rapidly increasing enrollments.

e. Provide for the continuation of vocational education under the administration of State boards for vocational education and directed and supervised through State departments of education.

f. Provide that educational components remain the responsibility of vocational education in existing manpower programs and/or new manpower acts passed by Congress.

g. Provide for the administration of the educational components of the manpower programs on a national level under the Departments of HEW and the U.S. Office of Education.

h. Provide a prominent place for vocational education in the structure of the U.S. Office of Education, with sufficient staffing at the U.S. Office of Education to administer vocational education on a national level.

Appendix

RESPONSE TO RECOMMENDATIONS OF THE STATE ADVISORY COUNCIL FOR VOCATIONAL EDUCATION TO THE STATE DEPARTMENT OF EDUCATION

RECOMMENDATIONS FOR FISCAL YEAR 1973

Recommendation 1: Job Placement Assistance and Follow-up.—Because the Council believes that job placement and periodic follow-up is essential in determining the relevance of the program of Vocation/Technical Education to the world of work, it strongly recommends that the facilities of the emerging Vocational Education Reporting System be employed to effective job placement and periodic follow-up and that this aspect of the vocational education program be accepted as an administrative responsibility by the highest authority at local and State levels.

Response.—The try-out of the follow-up study developed as part of the Vocational Education Reporting System (being developed by VPI&SU and the Division of Vocational Education under a special research grant) proved to be successful in obtaining a high percentage of usable responses. However, since the Standards of Quality and Objectives for Virginia Public Schools, 1972–74, require an annual follow-up of every high school graduate, the VERS Team is working with the Division of Research to develop by fall of 1973, a single follow-up system that will serve both vocational and non-vocational education interests.

One of the funded career education projects successfully designed and established a placement program during this school year which will serve as a model for placement programs in other schools of similar size in similar communities. This spring proposals for establishing exemplary placement programs in six or more schools of different size in various communities around the State will be developed by the Division of Vocational Education and applications from local school divisions for implementing the proposals will be approved for the next school year.

The State Department of Community Colleges has completed a comprehensive statewide follow-up of graduates and non-graduates from 1966 until 1971. The reports will be available by the middle of the summer. Individual community colleges also conduct follow-up studies on a more limited basis annually.

Recommendation 2: Community In-Put—Local Advisory Councils or Committees.—In view of the potentially great benefits to be derived from local advisory in-put, it is recommended that the State Department of Vocational Education be urged to encourage the development of local Division-Wide; Discipline-Wide; and Occupational Trade and Craft advisory committees which will meet for active consideration of plans, programs, and progress on a reasonable periodic schedule. The organization and operation of such bodies will establish operating procedures according to adopted guidelines.

Response.—The Vocational Education Division continues to encourage the establishment of general local advisory committees, local advisory committees for a single program field, and local craft or specific occupation committees. While the Division has not made a recent count, it is known that the number of local advisory committees is increasing, especially in conjunction with the new secondary vocational education centers. Several vocational program field services have guidelines for establishing and operating local advisory committees which they have distributed to teachers and coordinators.

In planning goals and objectives for vocational education for the next three years, the Division of Vocational Education has placed the utilization of advisory committees as one of its major objectives. The objective reads as follows:

"By June 30, 1976, a plan to promote the utilization of local advisory committees will be implemented throughout the State by the Division of Vocational Education."

This objective will require the development of a plan of action, a State handbook for local advisory committees, and in-service teacher education relating to the establishment and utilization of advisory committees.

Recommendation 3: Career Education—K-16.—The imperative educational need is for a program of career awareness, orientation, exploration, and job preparation, for K-12. Effective implementation of this recommendation will require validation of content and procedures as developed in the on-going experimental models, career oriented teaching staff, and guidance counselors. Availability of acceptable staff competence will relate to teacher-counselor education programs. Implementation of this objective is urged at the earliest possible time.

Response.—Although a formal evaluation will not be made until June 1973, the two experimental career education models have proved most satisfactory according to the testimony of the students, teachers, and school administrators involved. Career education curriculum materials will be available for field testing by additional school divisions next year. A committee of State Department of Education personnel concerned with instruction has been appointed to develop a position paper on career education for the State Board of Education.

Two proposals to extend the experimental career education models from the elementary school into the middle school have been submitted to the U.S. Office of Education for funding. These proposals, if approved, will enable us to develop more fully the two experimental models which could establish the basis for a statewide program.

Several orientation and exploratory programs in Industrial Arts, "The World of Construction" and "The World of Manufacturing," have been introduced with apparent success and these offerings are expected to be instituted by more school divisions.

Virginia is participating in a five state curriculum materials development project. In this group are states who are developing curriculum materials for career education and we will have an opportunity to exchange materials and field test those from other states.

Recommendation 4: Cooperative Learning/Earning Programs.—Whereas there is a wide gap between the numbers enrolled in vocational classes in the high schools, 336,380, and those participating in the cooperative programs, 23,060, the Council urges further consideration of and greater efforts to involve more students in their terminal school years on on-the-job programs.

Response.—More opportunities for cooperative education exist in the public schools today than ever before and efforts are continually being made to increase enrollments. Cooperative education is offered largely at the eleventh and twelfth grade levels in the secondary schools, just prior to graduation and entrance into full time employment.

Enrollment in the eleventh and twelfth grades in occupational programs preparing students for gainful employment was almost 64,000 last year. Of these, approximately one-third were in cooperative programs. This percentage is expected to increase this year.

A number of special cooperative programs for the potential dropout are offered at lower grade levels and more than 1,200 students were enrolled in these programs in 1972. The Community Colleges undertook the preliminary planning to establish cooperative education for the disadvantaged in six institutions.

Recommendation 5: Additional Construction and Facilities for Vocational Education.—In consequence of the rapidly growing emphasis on career/vocational education and the resulting increases in enrollments in vocational education, the Council strongly recommends that efforts be made to encourage the State Department of Education and the State Legislature to appropriate larger funds for vocational education so as to more adequately meet the needs as reflected in the steadily number of persons requiring the additional services with particular reference to the needs at the post-secondary level.

Response.—According to the local assessments of vocational education reported by school divisions, January 1973, 20 percent need new buildings for vocational education while 76 percent need to add to their present facilities. With prospects for increased Federal funding uncertain, the need for increased State funding is critical. Studies continue to be made to ascertain the feasibility of having additional joint vocational facilities with two or more school divisions participating.

The Community Colleges are in need of twelve additional facilities by 1975, having added eight in 1973.

Recommendation 6: Implementation of Virginia Education Reporting System.—The State Department will take the necessary steps to perfect the Vocational Education Evaluation Project (VPI&SU) and its Vocational Education Reporting System (VERS) with all appropriate measures and supply the local school divisions, teacher education institutions, the State Advisory Council on Vocational Education, the State Board of Education, the State Department of Community Colleges and other educationally related persons and organizations with the findings at appropriate time intervals.

Response.—The Vocational Education Reporting System is a structured system based upon sound research. It has worked well in the first year of operation, and is proceeding on schedule.

Virginia will be joining a consortium of southern states for developing criterion referenced evaluation of vocational education. The consortium is being formed under the auspices of the Southern Association of Colleges and Schools and the VERS Team and State Staff will be working with this group.

A one-year and five-year planning and evaluation system is being developed for the localities within the planning system recommended in the *Manual for Implementing the Standards of Quality*. The annual evaluation will be tested this spring, and will be implemented this fall. The annual evaluation will precede the development of the annual projected plan by the local school divisions and will form the basis for that planning.

The VERS Team is also addressing itself to the problem of projecting the State's labor market needs. As the system becomes fully operational, reports will be readily available to all appropriate persons and organizations.

Recommendation 7: Standards of Occupational Readiness.—The leadership of the Council is urged to work in close cooperation with the State Director's staff in compiling a significant amount of information from the employers of occupationally prepared graduates and job-ready school leavers to serve as a reliable measure of the effectiveness of the instructional program. Such information is to be gathered through personal interview and/or questionnaire procedure.

Response—The need for a follow-up study of vocational education completions four years after exiting from secondary school has been under discussion since VERS was developed. It is envisioned that such a follow-up would include a complete survey of employers of former vocationally trained students and a statewide system will be developed in due time. A close working relationship with the Council on this project is most desirable.

Recommendation 8: Articulation of Vocational Education and Labor Demand and Supply.—The Advisory Council on Vocational Education strongly recommends that the current cooperative arrangement among the several State agencies concerned with the preparation, placement, and long-term employment of persons be continued and improved by coordinated efforts through intrapersonal arrangements.

Response.—It is the intent of the State Department of Education to continue and to improve the present cooperative arrangements among the various State agencies concerned with the preparation of youth and adults for employment and placement.

Recent agreements with the Department of Vocational Rehabilitation and the Special Education Division have resulted in the development of additional programs for the handicapped. The Employment Commission is assisting with the study to determine projected labor needs and the Governor's Manpower Planning Council provides the opportunity for additional coordination with other agencies.

8.03

WASHINGTON

State Director—Arthur A. Binnie

INTRODUCTION

A number of very significant steps contributing to improvements in the delivery of vocational education services to the people of the State of Washington have occurred within the past 10 years. A cardinal underlying rationale underlying many or most of these has been the refocus of emphasis from program centered planning and activities to people centered planning and activities. Encouraged by Federal leadership in the Vocational Education Act of 1963 and the amendments of 1968, our State's legislative and administrative response to meeting new and reshaped occupational training needs has been positive and resultful.

Chief among these has been the very creation of this agency; a unique free-standing statutory body whose entire responsibility it is to administer the programs of vocational education, or supervise the administration thereof, under the State plan for vocational education. Serving both the statewide common schools system and the statewide community college system from an independent, objective, statutory base, this council has provided leadership and direction that complements legislative priorities at the Federal and State levels that urge rapid expansion and improvement of the delivery of vocational education services.

The concurrent (1967) action by the Washington State Legislature in creating the statewide system of community colleges has provided aditional vehicles over which to deliver these serivces. From a 1967 base wherein approximately 24 percent of the programs in community colleges were vocational in nature, that ratio has grown to approximately 44 percent today. In real numbers terms for fiscal year 1972, secondary vocational programs served 132,801 persons while postsecondary programs served 125,194 persons in the combination of 89,624 community college enrollees plus 35,570 enrolled in the 5 vocational-technical institutes operated under common school jurisdiction.

It cannot go unnoticed that the U.S. Office of Education's 1971–72 survey of the 50 States indicated the per capita support at the State level for vocational education ranked the State of Washington first in the Nation. Legislative appropriations and locally generated funds have, together, provided first-class support for the vocational education enterprise in our State. This, we believe, says more about where our citizens put their priorities than all the rhetoric which could be written about the philosphic acceptance of occupational education's goals of providing alternatives to baccalaureate-level job objectives.

[redacted] [redacted]

We believe also that implicit in this acceptance of alternatives to college-level studies is the implementation and acceptance of long-held beliefs within our State in what has now been conceptualized as career education nationally. A philosophy that visualizes an educational process as a continuum, providing the competencies suited to the needs of the individual as they are needed by the individual. A process which does not preclude later opportunity. A process which succeeds in breaking the lock-step progression terminating at whatever level its initial continuity is interrupted. A process that demands flexibility of itself instead of its user.

Vocational education is only one component of that process. But the lessons learned regarding student-centered service delivery over the years by the vocational education community have well prepared that community to provide leadership in applying those learned lessons across the whole spectrum of education * * * whether that be the extension of career awareness into the lower grades, or the applications of career orientation into high schools and beyond, related to programs of career preparation.

Nothing about this process says, "You shouldn't go to college." Instead, it says to some that there are satisfying, needed, rewarding occupations that don't require college degrees to enter. Further, it says, many exist which will never make the requirement for degree-holding. But the real promise of the process is contained, in our judgement, in the absence of the either/or implication that unless one embarks upon and uninterruptedly completes professional preparation, only severely diminished later opportunities to do so would exist. It was this ultimatum, perpetuated in large part by higher education itself, that had to be dispelled. We believe great progress toward that goal has been made in Washington State.

Perhaps your question about our views of the "growth of vocational education within (your) State" was not designed to elicit these perceptions of philosophic concepts. However, it has been a lond-held personal belief of the undersigned that continuing to explore vocational education in isolation from the whole of the educational process has resulted in some distortions in public perceptions of our efforts and progress. Certainly one of these, at least, has been to perpetuate the separation of vocational from general education and contribute to the implication that somehow something less than total success results from a vocational education. Therefore, I felt that growth, as evaluated in the detailed data that follows, merited also being viewed in the total perspective of growth that has occurred in the educational process within our State. In my judgment, only part of growth is measured in numbers. An equally important part is not easily measured since it relates to philosophies and perceptions. But in long term effect, the latter may be more important than the former * * * growth in numbers follows growth in perceptions.

Proceeding then to the specifics of your questions, the following data has been assembled to match, as nearly as possible, the schema your questionaire established.

Table 1 responds to question No. 1, total enrollments for fiscal year 1963, 1968, 1972, projected fiscal year 1977.

Question No. 2 and its subsections relate to data based upon programs conducted under part B of Public Law 90–576.

Table 2 responds to question 2(a): Job training enrollments in high school programs.

Question 2(b) asks for some perceptions of the growth and development in Federal job training programs for youth and adults, highlighting the initiation or expansion of newer jobs; emerging occupations. Although unrelelated to part B funding as stipulated to be the parameters of this section of the response, Federal job training does imply the activities of MDTA programs, covered in some additional detail under question 2(f). These MDTA sponsored programs have consistently produced useful, innovative approaches to training with many applications to parallel vocational needs throughout the system. We believe additional values have been developed by our employing a system of competitive bidding for these programs wherein a variety of local educational agencies are obliged to rethink their approaches to training problems in the face of competition from other local educational agencies. In both terms of time and costs, this has proven productive. In term of cost/benefit results, our insistence on successful placement as a key component of the contract selection process has steadily raised the success ratios. These same institutions frequently apply lessons learned under these specially funded programs to their regular curricula. Directly relating to part B programs, I believe a useful correlation can be shown in table No. 1, indicating growth and projected growth in certain key areas. Health occupations are rapidly expanding. You will note the growth pattern from a little less than 2,000 in 1963, more than trippled by 1972 and almost tripled again in the 1977 projection. Part B funds have supported critically needed new programs of training for emergency medical technicians, medical and dental paraprofessionals and community health aides. In the field of public service, we have also employed part B funds for essential fire service training and contributed to police science development and coordination. These aids to public health and welfare are of great value to our State's citizens while simultaneously providing employment opportunities with rapidly expanding futures for the trainees. The opportunities are equally appliable to new entrants to the labor market and retraining and upgrading needs. You can note also the cyclical nature of technical (16) training, following the pattern of Washington's general economy. The 1963 to 1968 reduction, a 1972 plateau and the more than doubled 1977 projection tracks the decline and resurgence of engineering-related jobs in our labor market. Many specific technical skills have been developed to complement the State's industrial developments in aerospace, forestry, sea resources, agricultural engineering, and ship building and repair, in addition to others. You will note also the steady growth of the category "Distribution," as service trades and marketing needs expand with the economy. A special emphasis has been placed on the development of training programs within the scope of the hospitality industries as the business of tourism becomes one of Washington State's growing economic resources.

Table 3 relates to questions 2 a+c the post high school enrollments, further refined to reflect the division of postsecondary training in our State between the statewide community college system and the five vocational-technical institutes that remain under the jurisdiction of the superintendent of public instruction as part of the common schools system. A further factor in postsecondary enrollments is represented by a secor of the educational enterprise about which this agency's record contain only estimates; proprietary vocational schools. We estimate that an additional 20,000 persons per year are enrolled in these schools. That additional number does not appear in either table Nos. 1 or 3 since factual information and breakdowns are not available.

Table 4 completes the response to question 2(a) relating to adult enrollments.

Table 5 responds to questions 2 (d), disadvantaged, and 2 (e) handicapped enrollments.

Table 6 responds to question 2 (f) regarding those unemployed (which we equate with enrollments in preparatory programs) and those employed but needing retraining (which are shown as supplemental program enrolees). The third section of table 6 responds to MDTA enrollment data and completes question 2(f).

Question 2(g)(i) asks for a detailed description of the methodology employed by this agency in distributing funds from part B among local educational agencies. The following extracts from the State plan for vocational education, designed and administered by the agency, portray those details.

EXTRACT: STATE PLAN, PART I, ADMINISTRATIVE PROVISIONS

SECTION 3.26: CRITERIA FOR DETERMINING RELATIVE PRIORITY OF LOCAL APPLICATIONS

3.26-1 *Manpower Needs and Job Opportunities.* The manpower needs and job opportunities are determined through: the endorsement of programs by appropriate local vocational education advisory committee(s) (See Section 3.42-1), a statewide employment/enrollment forecasting system which compares actual enrollment with work force trends and then measures the impact the actual enrollment has on demand, data from the Washington State Department of Employment Security, data from the U.S. Department of Labor, recommendations from the State Advisory Council, and data and surveys and other studies.

3.26-2 *Vocational Education Needs.* The Coordinating Council for Occupational Education will annually identify vocational education needs of the groups of persons described in Section 102.51(a) as to not only reflect the delineations made in Section 102.51(d) of the regulations, but to also assure that there is a proper and equitable balance maintained among the various services and activities as covered in Section 102.51(b). Vocational education needs, showing continuing, changing, and/or emerging needs, will be measured by the incidence of dropouts, handicapped students, disadvantaged students and youth unemployment and other information.

The results of the evaluation records will be used as a basis for reviewing existing programs to determine the need for reoffering, improving or cancelling out programs.

3.26-3 *Relative Ability to Pay.* The relative ability of a local education agency to pay for its educational programs, services and activities is not applicable because of an equalization formula for the common schools and because of state appropriations for community colleges.

3.26-4 *Relative Costs of Programs, Services and Activities.* Relative excess program costs are factored into the state appropriated fund allocations to each local education agency, and therefore the basic excess costs are generally covered through state appropriations.

Example of Application

The encumbrance formula is based upon four factors specified by P.L. 90-576 (factors are underscored below):

Manpower Needs.—175 possible points.

Each new approved vocational program in an identified occupational area—25 points (Endorsement of vocational programs by an appropriate vocational education advisory committee constitutes identification of a need for training of manpower for specific occupations.)

Vocational Education Needs.—100 possible points.

Districts with a high incidence of high school dropouts—25 points.

Districts with a high incidence of disadvantaged students—25 points.

Districts with a high incidence of handicapped students—25 points.

Districts with a high degree of youth unemployment—25 points.

Costs of Program, Services and Activities.—725 possible points.

Certificated Vocational Direction—350 point maximum.

Vocational Supervision and Vocational Counseling—150 point maximum.

Dollars Spent by District for Vocational Education—225 point maximum (Data is based upon expenditure per full-time-equivalent vocational student using $900 as the minimum FTE expenditure. Nine-hundred dollars represents average basic and weighted revenue to district per vocational FTE.)

Ability to Pay.—Covered by State Equalization Formula.

Following is the explanation of assignment of points per district.

Points Earned by "X" School

I. *Manpower Needs*—175 possible points

______ New Programs—Data was extracted from applications for approval of new programs in vocational education. These programs were those approved for first-time operation within a *district* during 1972–73. Each approved new offering (not class or section) has a value of 25 points and those processed after August 21 were not included at the time of the allocations.

II. *Vocational Education Needs*—100 possible points

______ Dropouts—Data for these entries was taken from annual consolidated A-1 reports (submitted annually to Administration & Finance) which contain dropout statistics for the 1970–71 school year. A scale consisting of reported percentages of dropout is developed and points assigned accordingly. The greater the need for dropout prevention through improved vocational programming, the greater the number of points generated. Maximum of 25 points per district available. (Scale of .1% to 8.0%.)

______ Handicapped—Data was taken from the annual DVE 70-18 report of enrollments and completions in vocational education programs for the 1971–72 school year. A maximum of 25 points was assigned on a scale of .1% to 5.0% with districts having a high reported percentage of handicapped to total secondary students receiving the greatest number of points.

______ Disadvantaged—Data was gathered and analyzed in the same manner as for handicapped. The point scale ranged from .1% to 15.0%. Maximum of 25 points.

______ Unemployment—Data was taken from information supplied by the Department of Employment Security. This data was not supplied district-by-district, but by labor market area. School districts were then considered as being within a given labor market area and points were distributed accordingly with districts in high unemployment areas receiving the greatest number of points. The maximum number of points awarded any one district is 25. (Scale of .1% to 14.5%.)

III. *Costs of Program, Services and Activities*—725 possible points

______ Vocational Direction—Data was taken from two questionnaires submitted by each district: Form C132-5 (Page 11 of the Annual Districtwide Plan for Vocational Education) and Memorandum No. 72-15. All vocationally certificated people named in these questionnaires were double-checked against data supplied by the certification office for verification of vocational certification.

A full-time, certificated Vocational Director receives a maximum of 350 points (prorated for less than full time). A vocationally certificated instructor serving full time in the capacity of a Vocational Director receives a maximum of 200 points (prorated for less than full time). A school administrator serving full time in the capacity of a Vocational Director receives a maximum of 50 points (prorated for less than full time). There is a maximum of 350 points for vocational direction in any one district.

------ Supervision and Counseling—Data was taken from two questionnaires submitted by each district: Form C132-5 and Memorandum No. 72-15. All vocationally certificated people named in these questionnaires were double-checked against data supplied by the certification office for verification of vocational certification. A vocational counselor receives a maximum of 50 points for full-time vocational counseling (prorated for less than full time). There is a maximum of 150 points for combined counseling and supervision.

------ Dollars Spent for Vocational Education Programs—Data was taken from the F-196 Annual Financial Statement (Part II, Programs 20 and 28 Reports). Total district Program 28 costs were divided by vocational FTE's to determine district costs per FTE. A figure of $900, approximate 1971-72 income generated by each vocational FTE, was used as the base (basic support $365, .2 vocational support, .3 high school support, .116 staff support, and other weighted support factors all total an average of approximately $900). A maximum of 225 points was assigned according to vocational FTE costs.

------ Total Points.

Variable Matching of Local Funds for Federal Funds

The nonfederal share of expenditures is based on statewide nonfederal expenditures. Only the total expenditures from the state's allotment is considered in determining the required nonfederal share of such expenditures.

The nonfederal share of state and local expenditures for the purposes for which a federal share is paid.

(Ref: State Plan 3.25-1.)

Table 7 responds to question 2 (g) (ii), displaying dollar amounts and percentages of allocations compared between cities and poor rural areas.

Table 8 responds to question 2 (h), construction and equipment investments.

Question 3 of your series relates to other Federal programs.

Table 9 commences our response, displaying the numbers of persons served in our exemplary programs. In addition, details of these are shown in attachment No. 1, completing the response to question 3(a). The progress is self-evident.

Question 3 (b) relates to residential vocational education. The State of Washington has no such centers and, in all of the planning to date, no clear evidence is at hand to support a move toward establishing such centers.

Table 10 responds to question 3 (c), consumer and homemaking education. We were able to incorporate the data in context with the revised questionaire received from your office to supplant the original question 3(c).

Table 11 indicates the growth of cooperative education; question 3(d).

Table 12 responds to question 3(e); work-study programs.

Question 3(f) has been answered by the inclusion of several abstracts of proposals for vocational research from a publication entitled, "Vocational Research Projects Funded in Fiscal Years 1971 and 1972." The research projects were funded under part C money.

Question 4 of your series relates to the outstanding contribution of our State advisory council within the last 5 years. In my judgment and while isolating one contribution is difficult, the advisory council's second report, published 1971, was outstanding. It's thesis dealt with the image of vocational education held by a selected sampling of six publics within our State. 1,000 responses were selected for exhaustive analysis. Of real value to the professional, legislator and the publics themselves were the positive images which emerged. In further response to the question, detailed responses have been filed by our office to each of the succeeding annual reports, including details of appropriate steps taken to implement noted improvements. These have included closer working relationships with their council's public information committee, longer time-lines for their input to the development of the State plan for vocational education, the establishment of periodic joint meetings between our two bodies, and improvements in local advisory committee requirements and use.

Your question No. 5 asks for a summary and recommendations. I believe the data enclosed adequately reflects the progress made through the investment of Federal funds in the vocational education programs, statewide. Certainly, it would be a first order recommendation that the Congress and the administration cause the appropriation and allocation process to occur in a more regularized and more timely fashion. As a manager of an enterprise, convinced of the values to adequate planning, the uncertainties of funding in these past years has worked to the serious disadvantage of progress.

In response to the specific question of the Better Schools Act of 1973 it is a matter of record that I joined a large number of my counterparts across the country in voicing strenuous opposition to this proposed legislation. The proposal to totally wipe out the existing vocational education legislation and replace it with as incomplete a set of working principles as is contained in that act cannot help but alarm me. Its threat to consumer and homemaking education alone is alarming. The thrust of the act toward elementary and secondary education to the exclusion of postsecondary education is inexplicably counter to all recognized evidence of increasing needs for vocational services by adults. It must also be recognized that the abruptness with which the act proposes to completely supplant existing Federal prescriptions contained in guidelines for categorical funding with as yet unprepared State mechanisms can well lead to chaos. If, indeed, such a transition is desirable, most certainly the opportunity to make such a radical transition must be provided to the States.

As a final comment, relating to the decentralization of the U.S. Office of Education, I believe myself to be enough of a realist to recognize the potential loss involved in any decentralization. That is, the loss of a power base. In the struggle to gain attention among the many priorities competing for the ear of the Congress and the administration, splintering the policy setting centers to some form of regionalization can seriously reduce the net effectiveness of the Office of Education in the legislative arena. Moreover, in terms of precedents emerging from policy setting, the creation of precedents by each of the regional offices will be, comulatively, less effective and more confusing than what has been the case in a centralized office. I find little to support the rationale that we who deal with the Federal office will discover a closer rapport from such a new arrangement. I was encouraged by the increased visibility implied in the reorganization of the U.S. Office *** visibility for vocational education. However, the slowness with which implementing steps are being carried out tends to cast doubt on the eventual net gains we can expect to achieve.

TABLE 1.—VOCATIONAL ENROLLMENTS: TOTALS INCLUDING FEDERAL, STATE, AND LOCALLY FUNDED

	1963	1968	1972	1977 (projected)
Total	125,560	219,095	[1] 257,836	333,871
By occupational area:				
01. Agriculture	9,823	13,747	15,680	31,434
04. Distribution	5,543	8,787	16,764	18,138
07. Health	1,965	3,230	6,957	14,991
09.01 Consumer and homemaking	[2] 50,725	72,745	72,216	78,017
09.02 Homemaking, occupational		1,267	6,570	4,153
14. Office	12,604	44,807	62,081	92,395
16. Technical	11,980	9,344	9,185	18,895
17. Trades and industry	39,845	53,140	55,550	69,180
99.01 Group guidance			14,401	6,668
99.03 Remedial			2,680	
99.04 Diversified		[3] 12,367	1,568	
99. NEC			3,023	

[1] Unduplicated enrollment figure.

[2] 1963 total includes 09.01 and 09.02 in one total.

[3] Includes 99.01, 99.03, 99.04 and 99. all in one figure.

TABLE 2.—ENROLLMENTS UNDER PUBLIC LAW 90-576—HIGH SCHOOLS

	1963	1968	1972	1977 (projected)
Total	39,969	94,970	125,767	121,855
By occupational area:				
01. Agriculture	8,515	10,817	12,485	11,473
04. Distribution	769	3,070	4,250	6,620
07. Health		150	551	5,471
09.02 Homemaking, occupational		160	2,633	1,516
14. Office		28,247	41,925	33,722
16. Technical		131		6,896
17. Trades and industry	787	2,664	5,057	25,249
99.01 Group guidance			6,353	2,434
99.04 Diversified		1,568		

TABLE 3.—ENROLLMENTS UNDER PUBLIC LAW 90-576—POSTHIGH SCHOOL

	1963	1968	1972	1977 (projected)
Total	18,641	45,141	58,112	103,953
Community college portion of postsecondary	7,502	19,895	23,144	50,510
By program:				
01. Agriculture		257	1,183	4,756
04. Distribution	257	1,286	3,365	2,744
07. Health	1,370	2,232	3,466	2,268
09.02 Homemaking, occupational		334	180	628
14. Office	3,465	5,146	5,708	12,978
16. Technical		3,788	2,385	2,858
17. Trades and industry	1,780	6,757	6,268	10,466
99.01 Group guidance			2,785	1,009
99.03 Remedial			1,403	
99. NEC			996	
Vocational-technical institute portion of postsecondary	15,139	25,341	29,226	50,000
By program:				
01. Agriculture		(1)	106	6,143
04. Distribution			2,019	3,545
07. Health	1,370		1,408	2,930
09.02 Homemaking, occupational			3,133	812
14. Office	9,139		4,515	18,056
16. Technical			2,268	3,692
17. Trades and industry	4,630		15,777	13,519
99.01 Group guidance				1,303

[1] 1968 detail data not available.

TABLE 4.—ENROLLMENTS UNDER PUBLIC LAW 90-576—ADULTS

	1963	1968	1972	1977 (projected)
Total	52, 123	43, 973	53, 683	73, 766
By occupational area:				
01. Agriculture	1, 308	2, 673	1, 862	9, 063
04. Distribution	4, 517	4, 442	6, 951	5, 229
07. Health	595	888	1, 532	4, 322
09.02 Homemaking, occupational		773	624	1, 197
14. Office		11, 414	9, 689	26, 639
16. Technical	11, 980	5, 425	4, 470	5, 449
17. Trades and industry	32, 720	43, 719	28, 448	19, 945
99.01 Group guidance			351	1, 922
99.03 Remedial			1, 277	
99. NEC			2, 027	

TABLE 5.—DISADVANTAGED AND HANDICAPPED ENROLLMENTS

	[1] 1963	[1] 1968	1972	1977 (projected)
Disadvantaged persons served in regular and special needs programs			10, 946	11, 055
Handicapped persons served in regular and special needs programs			4, 860	5, 340

[1] Identifying data not collected.

TABLE 6.—ADULT ENROLLMENTS, UNEMPLOYED, EMPLOYED AND MDTA COMPARISONS

	1963	1968	1972	1977 (projected)
Preparatory program totals	([1])	19, 895	58, 701	115, 756
By occupational areas:				
01. Agriculture		257	1, 289	10, 898
04. Distribution		1, 286	5, 384	6, 289
07. Health		2, 232	4, 874	5, 198
09.01 Consumer and homemaking		95	6, 920	27, 049
09.02 Homemaking, occupational		334	3, 313	1, 440
14. Office		5, 146	10, 223	32, 034
16. Technical		3, 788	4, 653	6, 551
17. Trade and industrial		6, 757	22, 095	23, 985
99.01 Group guidance			2, 785	2, 312
99.03 Remedial			1, 403	
99. NEC			996	
Supplemental program totals	([1])	91, 963	66, 334	96, 259
By occupational areas:				
01. Agriculture		2, 673	1, 862	9, 063
04. Distribution		4, 422	6, 951	5, 229
07. Health		888	1, 532	4, 322
09.01 Consumer and homemaking		22, 649	12, 696	22, 493
09.02 Homemaking, occupational		773	624	1, 197
14. Office		11, 414	9, 689	26, 639
16. Technical		5, 425	4, 470	5, 449
17. Trade and industrial				
99.01 Group guidance			351	1, 922
99.03 Remedial			1, 277	
99. NEC			2, 027	
MDTA institutional program enrollments	1, 828	1, 892	4, 426	5, 500
By occupational areas:				
01. Agriculture	62	177	52	495
04. Distribution	86	219	35	660
07. Health	76	220	155	660
09.02 Homemaking, occupational		134	47	385
14. Office	311	276	557	770
17. Trade and industrial	1, 293	685	957	1, 925
99.03 Group guidance		181	360	550
99. NEC			2, 263	55

[1] Identifying data not collected.

TABLE 7.—DISTRIBUTION OF FUNDS, CITIES OVER 250,000, POOREST RURAL AREA

Geographic area	Population 1970	Percent	Federal fiscal year 1972	Percent	State and local fiscal year 1972	Percent
Total state	3, 409, 410	100	$8, 984, 173	100	$44, 507, 678	100
City of Seattle[1]	524, 110	15	1, 252, 895	14	5, 124, 226	12
SMSA (less Seattle)	1, 724, 727	51	1, 369, 695	15	5, 647, 516	13
Non-SMSA	1, 160, 573	34	6, 361, 583	71	33, 735, 936	75
Poorest rural area[2]	138, 272	.4	301, 463	3.4	1, 183, 836	4.6

[1] Seattle is the State's only city with a population over 250,000.

[2] The "poorest rural area" selected, using a comparison of factors including ratios of Spanish-speaking and minority population, owner occupied housing, housing values, median income and families below poverty levels, evolved into an area covering 2 intermediate school districts of the State, encompassing 5 rural counties.

TABLE 8.—INVESTMENTS FOR CONSTRUCTION AND EQUIPMENT

	1963–68	1969–72	1973–77 (projected)
Construction:			
Federal	$258, 051	$255, 101	(1)
State	6, 492, 428	27, 730, 216	$50, 000, 000
Total	6, 750, 479	27, 985, 317	50, 000, 000+
Equipment:			
Federal	3, 993, 940	3, 325, 607	3, 500, 000
State	3, 990, 655	12, 457, 216	12, 000, 000
Total	7, 984, 595	15, 782, 823	15, 500, 000

[1] Unknown.

TABLE 9.—EXEMPLARY PROGRAMS[1], NUMBERS OF PERSONS SERVED

	1968	1972	1977 (projected)
Total persons served		19, 000	35, 000
K-12 system		15, 000	28, 000
Postsecondary		4, 000	7, 000

[1] Figures do not include projects funded directly from USOE/Commissioner. Further details of programs are included as Attachment 1.

TABLE 10.—CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS, STATE OF WASHINGTON

Enrollment Statistics	Fiscal year 1963, vocational home Economics—09.01	Fiscal year 1968: Home economics useful employment (Home making) 09.01	Fiscal year 1968: Home economics gainful employment—09.01
Secondary	29, 898	49, 731	160
Adult	20, 827	22, 744	1, 107
Totals	50, 725	72, 475	1, 267

Fiscal Year 1972

	Total	Part F—Consumer homemaking—09.01: Disadvantaged	Part F—Consumer homemaking—09.01: Handicapped	Part B—Occupational home economics—09.02: Disadvantaged	Part B—Occupational home economics—09.02: Handicapped	Total
Secondary	52, 600	1, 559	357	98	13	2, 633
Adult	19, 616	1, 000	498	147	19	3, 937
Totals	72, 216	2, 559	855	245	32	6, 570

	Fiscal Year 1977 (projected)	
	Part F—Consumer homemaking—09.01	Part B—Occupational home—09.02
Total enrolled:		
Secondary	28,474	1,516
Adult	49,543	2,637
Totals	78,017	4,153

TABLE 11.—COOPERATIVE VOCATIONAL EDUCATION

	1963	1968	1972	1977 (projected)
Enrollments:				
Secondary	769	2,884	4,326	3,803
Postsecondary	257	1,286	1,457	1,800
Total	1,026	4,170	[1] 5,773	[2] 5,603

[1] Of these, 1,029 enrolled under part G, Public Law 90-576.
[2] Of these, 1,100 enrolled under Part G, Public Law 90-576.

TABLE 12.—WORK-STUDY PROGRAMS

	[1] 1963	1968	1972	1977 (projected)
Enrollments:				
Secondary		379	209	400
Postsecondary		177	258	400
Total		556	467	800

[1] Indentifying data not collected.

Attachment No. 1

PUBLIC LAW 90-576, PART D—EXEMPLARY PROGRAMS

Since the inception of the funding of exemplary projects from the 1968 Amendments, the major thrust of the State of Washington has been in the area now called Career Education. The local vocational directors felt that providing awareness and exploratory experiences for elementary and secondary students, and guidance, informational services, and strengthening of placement services for post-secondary students would strengthen vocational programs over the State.

Exemplary projects may involve only one school in a school district when the project is being carried out. However, the effect of that one project has a multiplier effect upon the other schools of that district through the district's own in-service programs, through staff meetings, through teachers, administrators, and counselors sharing ideas, and through dissemination of information from the school district and State office of processes, methods, and activities. The effect is also multiplied through workshops and seminars where participants in exemplary projects share their experiences with those from other school districts.

In 1972 there were over 15,000 students involved in K-12 exemplary programs and over 4,000 in post-secondary programs. Our reports show that since the implementation of the Part D exemplary project funding, we now have over 125,000 students who have been directly involved in projects. By 1977 we are estimating this to be in excess of 300,000. The 1972 figures do not include the number of students who are involved in the KCTS-TV Educational Programs that are broadcast over Western Washington and fed into the Yakima Valley area.

The following pages contain details of FY-72 projects and funding levels applied to these developments. There are three sections. The first exhibits

Community College (Postsecondary) Projects and the second section contains Common School (K–12) Projects.

EXEMPLARY 1971–72 COMMUNITY COLLEGES

"A COOPERATIVE INTERDISTRICT APPROACH TO A REGIONAL PLACEMENT PROGRAM"

Big Bend, Columbia Basin, Walla Walla, Wenatchee Valley, and Yakima Valley

A consortium of Big Bend, Columbia Basin, Walla Walla, Wenatchee Valley, and Yakima Valley Community Colleges to cooperatively develop and test a model placement program in cooperation with an experimental program of the Washington State Employment Security office and other agencies. The main features of the model being developed are:

(*a*) Mounting a job placement program via the joint implementation and utilization of the Employment Security Job Data Bank.

(*b*) Development of a cooperative follow-up program.

(*c*) Providing an in-service staff training program.

(*d*) Sponsoring a "Labor Market Information Workshop".

(*e*) Develop a program of local and regional Labor Market Information.

(*f*) Mounting a job development effort individually and collectively.

"DEVELOPMENT AND IMPLEMENTATION OF AN INTEGRATED MODEL PLACEMENT PROGRAM"

Clark College, and Lower Columbia College

A cooperative effort of Clark College and Lower Columbia College to develop a model placement program to better serve their terminating occupational students.

The primary intent of the Model Placement Program is to improve job and career placement for occupational students through an integration and improvement of existing placement related activities and services. It is an effort to provide up-to-date information to students and employers prior to admission, while they are enrolled, upon termination and during either supplemental training or succeeding placement. All data pertinent to job placement, both while the student is enrolled and after he has completed his program, will be merged with (1) student profile and achievment information, and (2) job listings and career information. This data will be computer processed and made available to students, counselors, instructors, potential employers and cooperating agencies such as local school districts and Employment Security. The Model Program will be written in COBOL and can be adapted for use on computers utilized by the state system colleges. A successful placement program must be seen as an integration of several activities common to community colleges; the improvement of each of these activities will in turn contribute to an increase in the number of successful placements. The project will consist of three phases which will be undertaken simultaneously, but accomplished in this order:

1. Coordination of internal information.
2. Develop and implement coordination with the "education" community.
3. Develop coordination with the work community.

"EXITO: POR MEDIO DE LA EDUCACION VOCACIONAL EN SEIS COLEGIOS DE COMMUNIDAD EN EL ESTADO DE WASHINGTON"

Minority Affairs Council, State Board for Community College Education

Brochures printed in Spanish for spanish speaking people in the areas of six selected community colleges in the State. It will provide an alternative informational source about vocational and career education for this audience and will identify resource people at the colleges spanish speaking people can contact for further information.

EXEMPLARY 1971–72 COMMON SCHOOLS

"DEVELOPMENTAL VOCATIONAL INFORMATION PROJECT"

Kennewick

Provides career information for grades 6–9, especially to disadvantaged students. In-service training for teachers to develop vocational information program, followed by development of curriculum guides and occupational information. The curriculum guides will be used in appropriate units in the classroom instruction. The occupational information will include guidance materials, information kits, audio-visual units and accessories. The kits, or units, will be checked out to buildings to coincide with planned units of instruction. This will develop a "resource bank" for career information to be used by eight junior high schools.

"PROJECT G.I.V.E."

Kent

Continuation of program started in 1970–1971 school year on career awareness for 4th, 5th, and 6th graders.

Provides printed and audio-visual library materials for 4th, 5th, and 6th grades in four elementary schools. These materials meet career awareness and vocational interest needs of students to aid career information and learning motivation. In-service workshops for the teaching staffs to develop and implement career awareness materials to be included in the curriculum.

"PRE-VOCATIONAL PROGRAM IN PRIMARY GRADES"

Liberty

Vocational guidance counselor conducts in-service workshops on occupations for teachers in two elementary schools, grades 1–3. Use of student role-playing, field trips, audio-visual aids, bulletin boards, etc., to help student become aware of the world of work and give background of information about occupations.

"OCCUPATIONAL AWARENESS—MIDDLE SCHOOL"

Marysville

Provides middle school students with lectures, visual aids, exhibits on occupational skills available to students, as well as discussions on-the-job and in classroom with artisan workmen, vocational teachers, and employees from selected occupations. It also provides for in-service education programs for the staff to aid in the development of career oriented units of instruction to be incorporated into the regular curriculum.

"INVOLVING CHILDREN IN VOCATIONAL AWARENESS AT STEWART ELEMENTARY SCHOOL"

Puyallup

Program to increase awareness in elementary students of wide range of career and vocations available and develop positive attitudes toward productive work. Realistic work projects (field trips, role playing, etc.) planned for each grade with project director and director of vocational education as consultants and assistants. Parents and other volunteers from the community will be used as resource people to assist the classroom teachers wherever appropriate. Hands-on experiences will be provided in many areas.

"CAREER-ORIENTED EDUCATION"

Seattle

Provides learning situation in K–6 curriculum to explore personal attitudes and aptitudes for work, identify employment opportunities, needed skills and knowledges, recognize how skills in reading, computation, etc. enable one to earn a living. This project will enable five more elementary schools to become involved in the career awareness phase of career education. Staff development workshops held in the elementary schools to enable approximately 160 staff members to take part in curriculum development and orientation activities.

"CENTRAL OCCUPATIONAL INFORMATION SERVICE"

Seattle

Program to provide career education for K–12 curriculum in Seattle School District for use by students, teachers, counselors, administrators and parents. This will enable students to become knowledgeable about types of work in various occupations by collection, storage, retrieval and dissemination of occupational information. Audio-visual and printed information made readily available to students in career resource centers.

"PEOPLE AT WORK"

Channel 9—KCTS-TV, Educational Television

To assist in the filming of some of the segments of the "People at Work" series for 34rd and 4th grades. The films will then be made available for the CCOE for other uses. This series will consist of 30 segments each on different career opportunities in the State of Washington. They will be shown three times each week. This program also shown in the Yakima area.

"OCCUPATIONAL OPPORTUNITIES FOR LIFE" (JUNIOR HIGH)

South Kitsap

Program is designed to familiarize the junior high students with the broad range of occupations that are available and the requisites for careers in such occupations. It will give them an opportunity to explore in some depth careers that are of interest to them and to begin to make tentative decisions based on their own aptitudes, attitudes, and interests. The program will include class presentations by resource people from the community, on-site visitation by small groups of students, field trips, audio visual, and printed materials. This program will be coordinated and articulated with the career awareness programs in the elementary grades.

"CAREER OPPORTUNITIES SURVEY & GUIDANCE SYSTEM DEVELOPMENT"

Vancouver

Provides support for person with appropriate occupational guidance qualifications to design and conduct survey of occupational guidance in Vancouver schools. Attempt made to accurately assess the status of occupational guidance, compare findings with comprehensive optimum system, and develop plans to bridge the gap between the two.

"V.I.E.W. ELEMENTARY"

Yakima

To expand the elementary VIEW deck, started last year to cover over 350 occupations. "*V*ital *I*nformation for *E*ducation and *W*ork"—adapting V.I.E.W. for elementary students to aid in providing information about the world of work and to develop positive attitudes about work. This program will enable them to investigate many different types of occupations and is aimed at giving each child a more realistic and practical self-concept in relation to his ultimate goals. Will also include information about teen jobs.

APPLICATIONS FOR DISCRETIONARY AWARD UNDER PART C, PUBLIC LAW 90-576, FISCAL YEAR 1972

Project title: "Co-operative Work Program For Handicapped Library Technical Aides."

Researcher: Mrs. Helen A. Mumgardner. Phone: JU4-7611 Ext. 219.

Applicant agency: Clover Park Vocational Technical School.

Address: 4500 Steilacoom Boulevard SW., Lakewood Center, WA 98499.

Name of person authorized to sign contracts: Dr. Fred V. Miner.

Estimated numbers of persons who will be involved in the project: Staff 3, Students 3, Others 3.

Date submitted: January 5, 1972.

Proposed beginning and ending dates: April 3, 1972–June 9, 1972.

OBJECTIVE

To establish employment capabilities of handicapped students in the Clover Park Library Technical Aide program through supervised work experience on campus at minimum salary for the 10 weeks of the 1971–1972 school year.

METHODOLOGY (DIGEST)

Students who have graduated from library technical aide training and who have a physical, mental, or socio-economic handicap, will be employed, under the supervision of a trained library staff person, to perform technical processes needed by cooperating libraries.

The first step will be to secure the services of a qualified supervisor. The second, to identify students from the Library Technical Aide graduates who need the experience of a co-operative work program. Following steps will include locating libraries willing to have technical processes performed outside their libraries and willing to pay for the supplies and laboratory fees.

The students will work on campus, in an on-the-job atmosphere. Cooperating libraries will indicate their degree of satisfaction with the completed projects. Students will be encouraged to seek outside employment and libraries will be encouraged to hire this type of student for tasks which he is capable of performing.

If successful, the program will be continued using regular vocational school funding.

Project title: "Feasibility of Student Operated Business To Increase Number of On-the-Job Training Stations in Camas, Wa.—Pilot Program."

Researcher: Frank Richards. Phone: 834-3441.

Applicant agency: Camas Public Schools.

Address: 2028 Northeast Garfield, Camas, Washington 98607.

Name of person authorized to sign contracts: Gale Marrs, Assistant Superintendent.

Estimated numbers of persons who will be involved in the project: Staff 1, Students 3-6, Others 10—Advisory Members.

Date submitted: January 18, 1972.

Proposed beginning and ending dates: April 3, 1972 through June 2, 1972.

OBJECTIVE

To establish a community student operated business in order that our local diversified occupations program may be expanded to include three or more on the job training stations.

REVISED OBJECTIVE—RCU

To increase DO work stations at Camas High School for between 3 and 8 students by June 2, 1972, at a total cost of $2,008.00.

METHODOLOGY (DIGEST)

Through the help and coordination of the local Kiwanis Vocational Committee, students will set up and direct the operation of small business for bicycle repair. Students will be supervised by local businessmen and our DO Coordinator, Frank Richards. Business students in our vocational office in business practice classes will participate in setting up bookkeeping and ordering procedures that are necessary. Consultant services on repair training will be provided by the local district. The student operated pilot enterprise will be evaluated at the end of the funding period as to:

1. Has it provided three or more new job training stations to strengthen our DO program in Camas?
2. Has it established a self supporting base on which to continue?

Project title: "Workshop on Career Awareness for Elementary Teachers in I.S.D. 106."

Researcher: Robert R. Griffith. Phone: 782-2914.

Applicant agency: Cashmere School District No. 222.

Address: Cashmere, Washington 98815.

Name of person authorized to sign contracts: Mr. Richard Johnson, Superintendent.

Estimated numbers of persons who will be involved in the project: Staff 10, Others 65 educators.

Date submitted: April 24, 1972.

Proposed beginning and ending dates: June 1, 1972–August 31, 1972.

OBJECTIVE

To provide career awareness information and materials to 65 elementary educators from 15 school districts in an in-service multi-media setting at Cashmere, Washington, June 19 to 30, 1972, at a total cost of $12,510.40.

To initiate career awareness programs in elementary schools of 12 to 8 participating school districts by September, 1972, at no additional cost to this project.

METHODOLOGY (DIGEST)

A two week workshop utilizing consultants plus personnel from S.P.I., C.C.O.E., and other state and federal agencies also persons from local districts having knowledge and experience in programs already established. They will conduct lectures, seminars, and demonstrations, utilizing a multi-media approach.

The workshop will be 60 hours in duration. The first five (5) days will be devoted to program orientation and understanding of principles of the program. The last five (5) days will be devoted to program planning and development of units to be used in the various districts represented.

During the school year a combination of personnel from I.S.D. 106 and the local districts will function as a team to aid districts in program development and evaluation.

WEST VIRGINIA

State Director—Clarence E. Burdette

INTRODUCTION

Vocational education has experienced significant growth in West Virginia during the past decade. Increases in enrollments are primarily attributable to two factors—one being the legislative changes brought about by the Vocational Education Act of 1963, which provided for expansion of vocational education to include preparation for employment in any occupational area requiring less than a baccalaureate degree, and the other being the catalytical action of increased Federal aid to vocational education resulting in the construction of new and expansion of existing facilities.

The impact of this expansion and its full effect upon the educational program in West Virginia is yet to be fully felt. Some 19 area school construction projects in West Virginia were either under construction or awaiting bids as of May 1, 1973. Funds, made available through the Appalachian Regional Commission Act, the Vocational Education Act of 1963 and the 1968 amendments, supplemented by State and local moneys, have made this degree of facility expansion activity possible.

The new facilities which have become operational since 1963, coupled with expansion of programs offered by the community colleges under direction of the West Virginia Board of Regents, have greatly increased accessibility to modern vocational education facilities and programs for citizens throughout the State.

Vocational education enrollments at the secondary, postsecondary, and adult levels have increased by approximately 100 percent during the past 10 years as indicated below in table I. With completion of facilities presently under construction and in the planning stage through 1977, vocational education program opportunities should be available to residents in any area of the State.

TABLE I.—*West Virginia total vocational education enrollments*

1963	32,508
1968	52,800
1972	65,030
Projected 1977	[1] 76,880

[1] Does not include MDTA enrollments.

While the growth in enrollments during the past 10 years is commendable, and increased projected growth is desirable from a programmatic point of view, there are concomitant problems which have emerged in the operation and administration of vocational education programs.

The responsibility for operational funding of programs is an area of increasing concern and while enrollments and operational costs have been skyrocketing, there seems to be an increasing reluctance for increased funding for vocational education at the Federal level. Thus, vocational education is being forced to compete with a myriad of State and local priorities for the allocation of funds necessary for operation of high quality programs necessary to produce an educated and job ready citizenry. This concern poses one of the major challenges for vocational education during the 1970's.

PUBLIC LAW 90-576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

a. Job Training Enrollments

The following table provides a breakdown of job training enrollments in West Virginia, specified by year, level of program and occupational area.

TABLE II.—WEST VIRGINIA ENROLLMENTS IN OCCUPATIONAL PREPARATION PROGRAMS

	1963	1968	1972	Projected 1977
Vocational agriculture:				
Secondary	5,290	4,858	4,331	4,500
Postsecondary				150
Adult	584	390	389	500
Total	5,874	5,248	4,720	5,150
Business and office education:				
Secondary		12,515	11,560	12,138
Postsecondary		24	314	850
Adult		2,437	2,521	2,692
Total		14,976	14,395	15,680
Distributive education:				
Secondary	223	266	752	1,020
Postsecondary				90
Adult	1,201	297		640
Total	1,424	563	752	1,750
Health occupations education:				
Secondary			360	600
Postsecondary	252	205	648	1,500
Adult	101	82	654	320
Total	353	287	1,662	2,420
Home economics education:				
Secondary		428	760	1,500
Postsecondary				200
Adult		408	401	500
Total		836	1,161	2,200
Vocational industrial education:				
Secondary	3,345	4,667	8,218	10,000
Postsecondary		241	869	1,500
Adult	6,129	5,855	7,604	10,000
Total	9,474	10,763	16,691	21,500
Technical education:				
Secondary	194	373	812	1,200
Postsecondary		921	792	3,000
Adult	187	652	456	1,000
Total	381	1,946	2,060	5,200
Total for all services:				
Secondary	9,052	23,107	26,793	30,958
Postsecondary	252	1,391	2,623	7,290
Adult	8,202	10,121	12,025	15,652
Grand total	17,506	34,619	41,441	53,900

b. General Description of Job Training Programs

Part B occupational preparation programs have experienced an even greater rate of growth since 1963 than was true for all vocational programs, including vocational home economics. This growth amounted to approximately 140 percent in the 10 years since 1963. Programs relative to the mining and construction industries and in the service and health occupations have enjoyed significant growth in relation to job opportunities in these areas. Particular attention has been given to planning vocational education programs in local educational agencies to meet current and projected manpower needs. These needs have been identified through local and state planning efforts and involvement of the Comprehensive Area Manpower Planning System offices, the West Virginia Department of Employment Security, and business and industry in local educational agency service areas. While this approach has been effective in determining broad occupational areas which offer a significant level of employment opportunity, there is a critical need for more definitive information concerning specific manpower requirements for program planning purposes.

The need for an "early warning" system, which will allow for necessary lead time for program planning, development, and operation purposes in relation to emerging occupations, if of critical importance. The development of a comprehensive data system, currently underway in the State in regard to vocational education, should eventually encompass manpower information and be of considerable value in this regard. Despite recognized shortcomings, there has been remarkable expansion and improvements of vocational education occupational preparation programs throughout the State during the last decade.

c. Postsecondary Courses

There are three types of institutions in West Virginia which offer postsecondary vocational education programs. These are the area vocational schools operated by county boards of education and junior colleges and community colleges operated by the West Virginia Board of Regents. The community college movement is currently getting underway in West Virginia with some community colleges functioning as independent institutions directly under the West Virginia Board of Regents and others being established on an existing campus of a college or university which is, in turn, under the board of regents. Accurate data is not available as to the proportion of enrollment by type of institution in past years. This information should be available in the future with development of the comprehensive data system.

While the total enrollment in post secondary programs of 2,685 in 1972 may not seem large, it does represent a significant increase from 252 in 1963. Furthermore, a projected increase to 7,290 by 1977 indicates that further expansion of postsecondary level programs is both necessary and desirable.

d. Disadvantaged Students

Enrollment data differentiating special needs and regular program students is not available prior to 1972. While efforts were made to enroll disadvantaged students in vocational education programs as the result of the 1963 Vocational Education Act, the effectiveness of this effort was never documented until the requirements of the 1968 Vocational Act Amendments were legislated. In 1972, some 2,702 students, identified as being disadvantaged, were enrolled in vocational education programs in West Virginia. The enrollment of 7,000 such students is projected for 1977.

The individualized nature of vocational education instruction, designed to assure progress of the student at his particular level of competency, has resulted in many disadvantaged students (students classified as disadvantaged according to specific established criteria) being able to succeed in regular vocational programs. Federal Regulations, which require that a student not be able to succeed in a regular vocational program in order to be eligible for disadvantaged program funding, serve to limit access of disadvantaged students into special programs since, in many cases, their special needs are being met in regular programs. This fact should be considered by those who interpret enrollment data for purposes of program evaluation and accountability since, enrollment figures may indicate that few students are being served. Additionally, the complex fiscal accounting procedures encountered in using earmarked disadvantaged funds for students enrolled in regular vocational programs has virtually forced use of the project approach, in which disadvantaged students are enrolled in special programs designed to meet their specific needs. Despite problems encountered in administering programs serving disadvantaged students, the special project approach has stimulated the development of a number of innovations in meeting vocational education needs of the disadvantaged target population.

e. Handicapped Students

Enrollment data for handicapped students is not available for the years of 1963 and 1968. A total of 895 students were enrolled in special programs in 1972 and projections for 1977 indicate that 1,500 students will be served in such programs. Considerable progress has been made in West Virginia with regard to the development of programs for the handicapped. Conceptually the West Virginia program poses a three-phase approach to occupational preparation for handicapped persons.

1. *Phase I. Exploratory*

Consisting of prevocational activities to include vocational assessment and occupational diagnosis.

2. *Phase II. Occupational Preparation Programs*

In which vocational education is provided in a shop or laboratory setting.

3. *Phase III. Job Placement Evaluation and Follow-up*

Where the student is placed in a job, evaluated and moved into the mainstream of employment. Followup procedures designed as part of the comprehensive data system are being developed.

Cooperation with special education and vocational rehabilitation is being maintained both at State and local levels. Each agency provides for appropriate supportive services in local level projects for handicapped persons.

f. Adults

The status of adult enrollments relative to those served in job training (preparatory) programs and those served in retraining (supplementary) programs is indicated on the following page:

TABLE III.—WEST VIRGINIA ENROLLMENTS IN ADULT PROGRAMS

	1963	1968	1972	Projected 1977
Preparatory	252	2,457	2,605	3,077
Supplementary	11,485	7,664	9,823	12,555
Total	11,737	10,121	12,528	15,632

Definitive information concerning adult education enrollments under part B are not available beyond an actual head count by type of program. A comparison of part B adult enrollments with Manpower Development and Training Act enrollments for the years specified are as follows:

TABLE IV.—WEST VIRGINIA COMPARISON OF PART B, ADULT AND MDTA ENROLLMENTS

	1963	1968	1972	Projected 1977
Part B	11,737	9,121	12,428	15,632
MDTA	318	1,386	1,528	(1)

(1) No projection.

Training under the Manpower Development and Training Act has been extremely effective in reducing unemployment and increasing the productivity of the work force in West Virginia. Enrollments in these programs increased from 318 in 1963 to 1,386 in 1968 and 1,528 in 1972.

There are no projections for MDTA training in 1977 since, the present act expires on July 1, 1973. However, it this legislation is continued, 750 training slots are needed for fiscal year 1974. State funded retraining programs accounted for 752 persons being prepared to enter new occupational fields during 1968. The need for these two programs for training ad retraining the so-called "hard-core" unemployed in West Virginia is a critical necessity.

g. Financing—Distribution of Federal and State Funds for Part B Programs

The formula for distribution of funds for vocational education in West Virginia gives consideration to a number of factors which relate to specific criteria outlined within the legislation and Federal regulations. These criteria include:

1. Manpower needs and job opportunities within the local educational agency service area,
2. Vocational education needs of the population within the local education agency service area,

3. The relative ability of the local educational agency to provide resources in support of vocational education programs and services and,

4. The relative costs of programs, services and activities provided by local educational agencies.

Funds allocated in support of construction are awarded on a project basis according to specific criteria which have been developed in relation to capital expenditures. These criteria include the:

1. Ability of the local educational agency to finance construction with local funds.
2. Degree of relationship between proposed program offerings and local, State and national manpower needs projections.
3. Adequacy of current vocational education facilities and the amount of construction funding received by the local educational agency in the past.
4. Placement record of present vocational programs offered by the local educational agency.
5. Need for vocational education in terms of target populations and numbers of persons to be served in vocational programs.

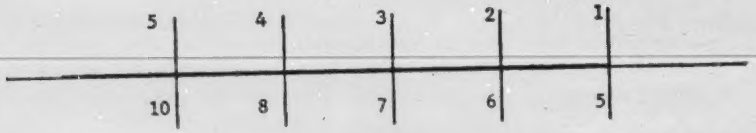
Funds allocated to operating programs are distributed in accordance with a mathematical formula incorporating the following variables as they exist in the local educational agency service area:

1. Effective assessed valuation per pupil.
2. Per capita personal income.
3. Dropout rate.
4. Unemployment rate.
5. Economically depressed area.
6. Manpower needs and job opportunities.
7. Excessive costs.
8. Vocational student contact hours.

The mathematical formula, incorporating the above variables, is designed to make the resulting weight of the variables relative between local educational agencies. To determine local educational agency allocations for each purpose indicated in P.L. 90–576 the factor for each variable is computed in the following manner:

1. Effective assessed valuation per pupil is computed by dividing the State arithmetical mean effective assessed valuation per pupil by the local educational agency mean effective valuation per pupil.
2. Per capita personnal income is computed by dividing the State mean per capita income by the local educational agency per capita income.
3. Dropout rate is computed by dividing the local educational agency percent dropout rate by the State mean percent dropout rate.
4. Unemployment rate is computed by dividing the local educational agency percent unemployment rate by the State percent unemployment rate.
5. Economically depressed area is indicated as "1" if the local educational agency service area is identified as being economically depressed and "0" is not economically depressed.
6. Manpower needs and job opportunities rate shall be computed by dividing the 55 counties into five groups through ranking according to number in labor force, the group of 11 counties having the largest labor force being assigned a weight of highest value —10.

The remaining groups of countries are to be grouped into four sections with assigned weight in descending order.



7. Excessive costs. Excessive costs for vocational education programs are not readily discernible from an analysis of accounts. To accommodate excess costs a constant factor shall be used in the formula. The assigned weight shall be 10.

8. Vocational student contact hours refers to the cumulative number of hours students spend in vocational instruction per week computed by multiplying the students enrolled times the number of contact hours per individual student.

Each variable will then be weighted and factor values determined. Factors values for all variables in the formula will then be added to arrive at a numerical total weighted point value for each local educational agency.

It is the formula that brings together the points earned on the several variables and enables them to be applied against the money to be allocated resulting in the local educational agencies receiving their proportionate share of the funds for the particular purpose upon consideration.

The ratio of the local educational agency point value to the sum of point values for all local educational agencies is then multiplied by the amount available for distribution to arrive at the exact local educational agency allocation **for the particular purpose.**

$$\frac{\textbf{Local Educational Agency Points}}{\textbf{Sum of all points for all Local Educational Agencies}}$$

Amount available for distribution=Local educational agency allocation

h. Construction and Equipment

Many of the advances, which vocational education has made in West Virginia during the past 10 years, have been due to increased funds which have been made available for constructing and equipping vocational education facilities. The continuation of this growth will be dependent upon the continued availability of funds from both State and Federal sources.

Table V below indicates the funds expended from Federal and State and local sources.

TABLE V.—WEST VIRGINIA FEDERAL-STATE AND LOCAL FUNDS FOR CONSTRUCTION AND EQUIPMENT

	Federal	State and local
1963	0	0
1964	0	0
1965	848, 400	848, 400
1966	1, 432, 285	2, 023, 035
1967	1, 823, 755	1, 962, 033
1968	1, 733, 344	4, 347, 638
1969	1, 300, 841	1, 604, 345
1970	969, 899	1, 838, 363
1971	1, 032, 163	1, 431, 841
1972	911, 702	1, 263, 931
1977, projected	4, 000, 000	4, 000, 000

a. Exemplary Programs and Projects

Exemplary projects have been utilized for the primary purpose of designing new approaches in meeting the vocational education needs of students. A variety of innovations have been developed including:

1. Development of career oriented educational programs serving students in grades 1-12,
2. Programs designed to meet the occupational preparation needs of disadvantaged and handicapped students,
3. Provision of inservice education programs for school counselors and,
4. Programs designed to provide intensified guidance, counseling and placement services to secondary level students.

Emphasis has been placed on the development of strategies to assure the incorporation of innovations, initiated under exemplary program provisions of the Vocational Act Amendments, into the regular program offerings of local educational agencies. Requests from local educational agencies for initiation of exemplary projects far exceed the availability of resources for support of such programs. The availability of funds, to support the development of innovative approaches to vocational education and provide incentives for program change, is important to the future growth and development of relevant vocational education programs.

Enrollments in exemplary projects in fiscal years 1968, 1972, and projected enrollments for fiscal year 1977 as follows:

Fiscal year 1968:

No enrollments. Exemplary projects were not initiated until fiscal year 1969 funds were appropriated.

Fiscal year 1972:

Program	*Students served*
1. Career Education Oriented Programs	3, 350
2. Programs for Disadvantaged Students	80
3. Intensive Guidance, Counseling and Job Placement Programs	1, 600

Fiscal year 1977:

Projected enrollments in fiscal year 1977 as specified in the long-range plan submitted by the State Board of Education is 6,000.

b. Residential Vocational Education

West Virginia needs a minimum of four residential vocational education facilities, located to serve the population centers of the State. These residential vocational facilities would be utilized as manpower skill centers in making expanded vocational education opportunities available to adults who can benefit from preparatory programs offered on a full-time basis. The lack of such centers in West Virginia has resulted in the relegation of adults, to a position of secondary importance in terms of full time preparatory programs.

c. Home Economics Programs

Enrollments in secondary level home economics programs have remained relatively constant during the past 10 years with a modest increase attributable to the development of occupational home economics programs. Adult enrollments in home economics, on the other hand, have increased significantly during this same period of time.

TABLE VI.—WEST VIRGINIA VOCATIONAL HOME ECONOMICS ENROLLMENTS

	1963	1968		1972	Projected 1977
Secondary	11,272	[1] 11,654	Part F, consumer and homemaking	[3] 11,731	12,500
		[2] 428	Disadvantaged	94	125
			Handicapped	92	125
			Part B, occupational home economics	760	1,500
			Disadvantaged	126	300
			Handicapped	124	300
			Part F, consumer and homemaking	9,865	14,000
Postsecondary adult	3,470	[1] 5,549	Disadvantaged	1,501	2,000
		[2] 408	Handicapped	0	0
			Part B, occupational home economics	401	500
			Disadvantaged	0	150
			Handicapped	0	0
			Total	22,356	28,700
Total	14,742	18,039			

[1] Useful.

[2] Gainful.

[3] Approximately ⅓ of all students are classified as disadvantaged according to the established criteria but are able to succeed in regular programs.

During the fiscal year 1972 a total of 22,433 individuals were enrolled in consumer and homemaking programs representing 54 of 55 counties in the State.

At the secondary level 11,731 students were enrolled in 140 departments with 163 teachers in 50 counties. Three special schools offered programs for the handicapped and three special programs for the disadvantaged offered courses to fit the individual student needs. Approximately one-third of those enrolled on the secondary level are classified as economically disadvantaged and about 70 percent of all consumer and homemaking programs are located in counties designated as economically depressed areas. On the secondary level, classes increased in the areas of consumer education and family living during fiscal year 1972. A total of 22,280 home experience projects were completed by consumer and homemaking students. The number of home experience projects continued to increase in the areas of consumer education, family living, home management, housing and home improvements.

Consumer and homemaking education programs for adults were offered in 32 counties. There were 9,865 men and women enrolled in 625 adult classes taught by 200 teachers. Approximately one-half of the adult programs were in economically depressed counties. Courses or units in consumer education were conducted cooperatively with adult basic education programs. Approximately 300 students were enrolled in these classes. Classes for men and boys, which increased in 1971–72, were home management, family living, foods and clothing.

d. Cooperative Vocational Education

There has been a gradual increase in the number of persons served in cooperative vocational education programs from 1963 to 1972. Funds, earmarked for cooperative education made available through the Vocational Act Amendments of 1968 has resulted in an increase in cooperative education enrollments as reflected by enrollment data shown in table VII below:

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TABLE VII.—*West Virginia cooperative education enrollments*

Fiscal year:	Students
1963	223
1968	563
1972	752
1977, projected	2,141

The expansion of cooperative education programs in many communities in the state has been hampered due to the rural nature of much of West Virginia and the corresponding lack of learning stations in business and industry. In 1972, much more emphasis was placed on cooperative programs and additional technical assistance was given to counties in relation to initiating new programs.

Certification requirements for cooperative vocational education programs are easier to meet than cooperative distributive education programs. The State of West Virginia does not have a distributive education teacher training program and must rely on teachers certified in distributive education who come from out of State, or teachers who are willing to go out of State in order to pick up necessary specialized courses in distributive education.

e. Work Study Programs

There were no work study programs offered in fiscal year 1963. In fiscal year 1968, the delay in allocation of funds prevented the effective operation of the work-study program during the entire year; however, 16 counties provided summer programs. The 8-week program provided employment for 183 boys in maintenance and repair, painting, groundskeeping, custodial services, and office assistants. Twelve girls participated in the summer program and were employed as office workers.

During the summer of 1972, 28 counties participated in the summer program; $70,597.50 was spent on student compensation. Requests to participate in the program were practically double the amount of money available.

According to the number of requests for work-study programs, more than double the number of students could be served, if additional funds were available. County requests must be cut in half to stay within the approved budget of funds for work study. Requests for student compensation during fiscal years 1971, 1972, and 1973 were in excess of $200,000. There may be a slight drop in requests by fiscal year 1977, but it seems that over 400 students could be served each year if funds were allocated.

TABLE VIII.—*West Virginia enrollments in work-study programs*

1963	0
1963	195
1972	221
1977, projected	450

f. Research and Training

The availability of part C, research and training funds is critical to the continued development of vocational education in West Virginia. Funds available to the State have been utilized to fund the

State research coordinating unit for the purpose of making grant awards to local educational agencies throughout the State.

Activities of the research coordinating unit have been directed toward operational research activities in relation to State plan programs, the stimulation and coordination of research within local educational agencies, the dissemination of research and related information having application to the State program of vocational education, and training activities designed to improve the research competencies of educators.

A significant research project currently underway by the research coordinating unit relates to the development of a comprehensive data system for vocational education designed to facilitate reporting, planning, and evaluation activities which will asssit in more efficient, effective, and accountable program management.

Grants have been made to a number of local educational agencies to facilitate the planning and revelopment of expanded programs of vocational education. One local educational agency utilized research funds to design and develop a curriculum to serve handicapped students. A project to determine competencies of local administrators is being conducted in conjunction with the Center for Occupational Education at North Carolina State University. The findings of this study will serve as a basis for revising vocational administrators preparatory programs. Another project initiated by one local agency in conjunction with Radio Corporation of America is designed to provide an individualized curriculum approach to vocational education.

The continued availability of research funds to the State is necessary if research and development needs are to be met. States should continue to be recipients of substantial research funds in order that research priorities identified at the State and local levels may be financed.

STATE ADVISORY COUNCIL

The State Advisory Council for Vocational Education has worked very closely in the last few years with the Bureau of Vocational. Technical and Adult Education in providing an overall assessment of State vocational education programs. The current State plan for vocational education incorporated five of the seven recommendations made by the advisory council concerning the previous year's plan. Specific actions which have been taken include:

1. Allowing more 10th grade students to enter vocational education programs.
2. Providing more incentives to promote active local advisory councils.
3. Requiring work experience for vocational guidance counselors.
4. Providing incentives to increase job placement of local educational agencies.

SUMMARY AND RECOMMENDATIONS

Summary

Federal funds received for vocational education have had a positive effect on the total educational system in West Virginia. The construction and equipping of vocational education facilities has allowed the accomodation of additional students on secondary, postsecondary, and adult levels and the completion of facilities planned through 1977 will provide most West Virginians with easy access to vocational education. The decade of the seventies should be marked by increased enrollments in vocational education at all levels, the extension of career oriented educational programs downward into the elementary grades and increased efforts in the areas of curriculum development, professional personnel development and improvement of supportive services for vocational education.

The growth of vocational education in West Virginia during the 1960's has been made possible through a strong Federal-State-local partnership in program development. The continuation and strengthening of this relationship is a key to the continued growth and development of vocational education in the State.

Recommendations

The following recommendations are provided for consideration of the Congress:

1. The level of Federal support for vocational education, made available through Public Law 90-576, should be increased to provide for increased operating costs as well as capital expenditure requirements projected as the result of long range planning.

2. The strong Federal-State-local partnership approach to vocational education, through which the gains of the past 10 years have been made possible, should be maintained and strengthened. This can best be accomplished through traditional patterns of funding which have functioned to make program expansion possible in the past.

3. Additional funds should be allocated to the States under the provisions of part C, research and part D, exemplary Programs. These two areas are prime sources of funds for the initiation of change in vocational education. Additionally, the high level of support, for projects initiated in these areas, serve as incentives for program development.

4. Additional funds should be made available for the purpose of extending career oriented educational programs downward through the elementary grades.

5. Provisions should be incorporated into legislation to establish a 2 year availability for Federal funds appropriated in support of vocational education.

6. Current efforts to reinforce and strengthen the U.S. Office of Education, with regard to its leadership role in vocational education should be encouraged and supported. Regionalization of staff to provide additional services to States is needed. However, a strong central staff within the U.S. Office of Education is essential for purposes of planning and leadership.

7. Continued support should be given to the national research and development effort in vocational education provided by the Ohio and North Carolina Research and Development Centers.

8. Support for the National and State Advisory Councils for vocational education should be maintained and strengthened.

WISCONSIN

State Director—Eugene Lehrmann

INTRODUCTION

Vocational education has experienced dramatic growth in the past 10 years. Unfortunately, good vocational enrollment information for 1963 is not available. The available data indicates that about 88,000 persons were served that year at the postsecondary and adult levels. The total enrollment for 1968 was 167,536. By 1972 enrollment was 253,495, an increase of 51 percent. This rapid growth is expected to continue into the near future with enrollment reaching 355,000 in 1977.

Of particular note is the growth in service through full-time postsecondary programs. In 1963 a total of 11,959 persons were served. In 1972 a total of 48,990 enrollments were recorded.

The secondary education system in Wisconsin has been moving rapidly to assume its responsibility in providing vocational education to high school age youth. Enrollment at that level has increased from 38,536 in 1968 to 103,278 in 1972.

Adult programs continue to be a strong factor in the vocational education delivery system with enrollments now exceeding the 100,000 mark. Data in the following sections further detail the past and expected future growth of vocational education in Wisconsin.

PUBLIC LAW 90-576; PART B—STATE VOCATIONAL EDUCATIONAL PROGRAMS

a. Job Training Enrollments

	1968	1972	1977 (estimate)
Secondary level enrollments:			
Agriculture	18,116	21,151	24,000
Distribution	528	4,763	6,000
Health	19	255	2,000
Home economics	93	538	4,000
Office	4,417	39,821	60,000
Trades and industry	2,233	25,134	40,000
Total	25,406	91,662	136,000
Postsecondary level enrollments:			
Agriculture	265	3,839	5,100
Distribution	2,490	5,393	8,000
Health	2,001	5,410	9,000
Home economics	223	810	1,600
Office	11,972	16,941	25,700
Technical	4,980	7,493	10,800
Trades and industry	6,499	9,083	12,700
Total	28,430	48,969	72,900
Adult level enrollments:			
Agriculture	8,649	3,974	5,475
Distribution	3,895	4,139	4,800
Health	2,152	3,912	5,200
Home economics	1,399	1,355	2,100
Office	13,867	16,812	18,600
Technical	0	428	700
Trades and industry	43,017	32,520	35,475
Total	72,979	63,140	72,350

b. General Description

Job training opportunities have expanded in all occupational areas, with dramatic growth in the health education occupations and trade and industrial areas. Overall, secondary courses increased from 442 in 1964–65 to 1,018 in 1971–72, for a 130 percent increase. At the postsecondary level, program offerings numbered 57 in 1964–65, more than tripling to 236 in 1971–72. Adult courses increased from 331 to 2,804 over the same 7-year period.

To assure that new program development is responsive to labor market needs, a system of advisory committees is utilized. These committees are made up of employers, employees, and others who are chosen from candidates submitted by member organizations or associations of each occupation or cluster of occupations. The policies that exist on all levels insist that these advisory committees be formed and function to assure that the system's philosophical concepts as well as practical instruction are carried out.

c. Postsecondary Programs

The students enrolled in the full-time postsecondary programs are served at the campuses of the 38 technical institutes and area vocational schools located throughout the State of Wisconsin. Enrollments in these programs increased by 72 percent from 1968 to 1972 and are expected to increase by nearly 50 percent in 1977 over 1972. The following table displays the number of different instructional programs offered at the postsecondary level in 1972.

Unduplicated programs by occupational area

Occupational area:	*Number of programs*
Agriculture	27
Business and distributive	48
Health and services	24
Home economics	24
Trade and industry	113
Total	236

d. Disadvantaged Students

A total of 13,607 disadvantaged students were served in job training programs during 1972. This total is a very substantial increase over the 1,981 students who were served in special programs(both disadvantaged and handicapped) during 1968. Approximately 22,500 disadvantaged students are expected to be enrolled in 1977.

e. Handicapped Students

In 1972, 3,097 handicapped students were enrolled in vocational education programs. This total represents a more than 50 percent increase in this type of student over 1971. By 1977 it is expected that about 5,000 students will be served through special programs for the handicapped.

f. Adults

In 1968, 2,457 persons were enrolled in adult preparatory job training programs and 48,432 were engaged in supplemental training programs. MDTA enrolled approximately 3,000 persons in 1968.

In 1972, 21,128 adults were enrolled in the preparatory job training programs and 36,992 were enrolled in supplemental training programs. Another 5,020 were enrolled in apprenticeship training programs. Some 2,364 persons received training under the MDTA programs in 1972.

g. (i) *Financing.*—Part B funds are distributed among local educational agencies and other agencies on a project approval basis. Project proposals are submitted according to specific guidelines and these applications are reviewed in terms of specific criteria in order to determine which projects will be funded and the rates at which approved projects will be funded.

The major categories and their relative weights are as follows:

Manpower Needs—Weight: 6, points possible: 30. Applications will be evaluated in terms of the extent to which the project or program helps prepare persons for occupations which rank high in terms of need for new employees and/or which are new and emerging. Current sources of information, such as publications of the Wisconsin State Employment Service (WSES), will be used to determine occupations which are rated as having "severe" or "great" needs, "mild" or "slight" needs, or no evident need. WSES data may be supplemented with special surveys or information obtained from reliable sources and which is properly documented and published. Ratings will be as follows: "severe" "great" needs: 5; "mild" and "slight" needs: 3; no need: 0.

Vocational Needs—Weight: 3, points possible: 15. Projects which aim at serving special target groups as defined in the 1968 Act and the State Plan will be rated 5. These groups include disadvantaged, handicapped, dropouts and underachievers. Projects which aim at serving regular groups will be rated 3.

Excess Costs—Weight: 3, points possible: 15.

Projects which have evidence of costs which are unusual compared to other projects or program within the educational system will be rated 5; excess costs will include such items as summer employment of instructors, extended employment or released time to conduct special program emphasis (cooperative education, planning new programs, etc.), high expenditures for initial equipment acquisition, etc. Projects which have only normal costs will be rated 3.

Relative Ability to Pay—Weight: 4, points possible: 20. School districts which are at the state median or below in their ability to draw on resources at the local level to support their education programs, as indicated by such measures as the equalized valuation per student, will be rated 5. Those which are above the median will be rated 3.

Total points possible: 80.

Additional Considerations

To help assure that local educational agencies will not be denied opportunity to participate in vocational education programs due to an inability to provide local matching funds, additional consideration will be given to those agencies which are in areas considered to be "economically depressed" under the provisions of the State Plan. An additional 5 points may be awarded local educational agencies located within "economically depressed" areas.

To help assist local educational agencies which are located in areas considered to be "high dropout areas" or "high youth unemployment areas" in the State Plan, projects from those agencies may be awarded an additional 5 points.

Projects that have special features which are considered to be demonstration or pilot in nature and which help to meet special needs of the state program may be awarded an additional 10 points.

Total additional points possible: 20.

Summary

Rating Scale for Vocation Education Act of 1968 Project Applications

Manpower Needs—Weight: 6, Points possible: 30.

Employment needs severe or great 5

Employment needs mild or slight	3
Employment needs not evident	0
Vocational needs—Weight: 3, Points possible: 15.	
Service to special target groups	5
Service to regular groups	3
Excess costs—Weight: 3, Points possible: 15.	
Unusual, high costs	5
Normal costs	3
Relative ability to pay—Weight: 4, Points possible: 20.	
Median or below median valuation	5
Above median valuation	3
Total points possible: 80.	
Additional considerations:	
Schools in economically depressed areas	5
Schools in high dropout or high youth unemployment areas	5
Demonstration or pilot projects	10
Total additional points possible: 20.	

(ii) *Financing for Metro and Rural Poverty Areas.*—There is only one city in Wisconsin with a population of 250,000 or more. This is Milwaukee. In 1971–72, the Milwaukee Area Technical District (Milwaukee and a portion of Ozaukee Counties) received $4,063,800 in State aids, or approximately 28 percent of all State aids. According to the Wisconsin Department of Administration's "Population Projections", the Milwaukee Area Technical District contained approximately 25 percent of the State's population in calendar year 1972. For 1971–72, the Milwaukee Area Technical District received 19 percent of all Federal aids distributed under the Vocational Education Act of 1968 ($890,529).

The State's poorest rural area, as measured by the percent of families with income less than poverty level (on a county-by-county basis) is the Indianhead Vocational-Technical Education District (Douglas, Bayfield, Ashland, Iron, Burnett, Washburn, Sawyer, Polk, Barron, Rusk, and St. Croix Counties). In fiscal year 1971–72, that district received approximately 4 percent of all State aids and contained approximately 5 percent of the State's population. In 1971–72, the Indianhead Vocational-Technical District received 7 percent of all Federal funds distributed under the Vocational Education Act of 1968 ($314.842).

h. Construction and Equipment (Postsecondary Schools)

INVESTMENTS

	Local	Federal	Total
Fiscal year:			
1964–65	$1,314,964	$876,640	$2,191,604
1965–66	1,983,898	1,704,473	3,688,371
1966–67	2,104,953	1,886,317	3,991,270
1967–68	2,185,000	2,185,000	4,370,000
Total, 1965–68	7,588,815	6,652,429	14,241,245
Fiscal year:			
1968–69	2,608,744	1,832,962	4,411,706
1969–70	11,063,969	1,309,046	12,373,015
1970–71	7,625,961	1,319,044	8,945,005
1971–72	8,893,000	1,250,000	10,143,000
Total, 1969–72	30,191,674	5,711,052	35,873,726

Note.—Estimated total construction funds required in fiscal year 1977–78 equal $12,979,000 (all funds).

CAPACITY INCREASES PROJECTED AS NEED REQUIREMENTS FROM 1973-74 TO 1977-78 (POSTSECONDARY)

	New construction projects	Added student capacity
Fiscal year:		
1973-74	6	3,350
1974-75	6	2,925
1975-76	6	2,830
1976-77	5	2,680
1977-78	4	2,510
Total	27	14,295

PUBLIC LAW 90-576; OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

No Federal funds under this part were received for expenditures prior to fiscal year 1970. Attached is a listing of projects funded for 1972. In Wisconsin, 40 percent of the State's allocation under part D, exemplary funds are administered by the State department of public instruction while the Wisconsin Board of Vocational, Technical, and Adult Education administers 60 percent. Much of this is spent on articulation programs between the two agencies. Annually, Wisconsin received applications exceeding by 2 to 3 times the amount of Federal funds available.

Many of the projects pertain to development, purchase and delivery of occupational and vocational guidance information to youth at all grade levels. Consequently, it is difficult to indicate the exact number of persons served in many cases. Regional career information centers and mobile guidance units in sparsely populated areas have proved to be widely used and successful. Video tapes and localized colored sound slides of workers on the job have helped to create awareness of jobs in youth. Other projects included use of young parolees and minority groups and disadvantaged students to encourage their peers to return or enroll in vocational and literacy courses. Slow learners were given work experience in auto mechanics during the summer to supplement classroom learning during the school year. Individualized learning packages and audio-visual materials for learning resource centers were also developed.

Projects for 1977 include expansion of the elementary, secondary, and postsecondary VTAE students served by exemplary programs from 25,000 in fiscal year 1972 to 100,000 in fiscal year 1977, which will require an anticipated increase of Federal funds from $157,566 in fiscal year 1972 to approximately $1 million in 1977.

b. Residential Vocational Education

The postsecondary vocational schools in Wisconsin serve a commuter clientele or the students are of an age whereby they arrange for their own housing. This housing is often supervised and, in fact, inspected by the district vocational school.

Approximately 138,000 public school students are members of districts offering comprehensive vocational programs. There are an additional 157,000 high school students who are not so favored. Residential schools may not be acceptable; however, much of this unacceptability is due to financing. If the financial constraints were removed, this removal may allow development of an answer to meeting the needs of the 158,000 students who are not currently enrolled in a comprehensive vocational high school. It would not completely remove this problem because some students are enrolled in high schools which meet the necessary criteria so far as size and financing are concerned but do not offer a comprehensive vocational education program. There are at least three areas which would encompass multicounty units where a residential vocational school may be established. Funding is of great importance, because at present, dollars are not available to expand the existing comprehensive vocational high school concept much less establish a residential school which would offer comprehensive vocational education.

c. Consumer Homemaking and Occupational Home Economics

Enrollment growth from 1962–63 to 1971–72 is shown below:

		1967–68 (Fiscal Year 1968)		1971–72 (Fiscal year 1972)					
	1962–63 (Fiscal Year 63 Vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	75,000	106,235 [1] 5,899	[1] 93	140,000 [1] 11,616	14,000 [1] 927	500 [1] 63	[1] 538	[1] 105	[1] 22
Adult and Postsecondary	22,718	33,238	1,622	38,108	1,872	156	2,165	228	32
Total	97,718	139,473	1,715	178,108	15,872	656	2,703	333	54

[1] Federally funded secondary enrollments.

It is projected that federally funded enrollments in Consumer Homemaking at the secondary level will grow to 20,000 by 1977–78. Secondary Occupational Home Economics enrollments will grow to 4,000 in fiscal year 1977–78, with 2,680 in the disadvantaged category and another 230 in the handicapped area. A total of 73,850 persons will be served in the Consumer Homemaking and Occupational Home Economics areas in 1977–78.

d. Cooperative Vocational Education

In 1972, 1,712 persons were enrolled in cooperative education projects throughout Wisconsin's secondary system. Some 1,400 of these were disadvantaged, and another 100 were handicapped. Some 3,800 are anticipated to enroll in the program by 1978.

e. Work Study Programs

In 1971–72, 696 persons were receiving services under the work-study portion of the Vocational Education Act. All of these were postsecondary students. Some 1,500 are expected to enroll by 1978.

f. Research and Training

There were no Federal funds received under part C of Public Law 90–576 for fiscal year 1968. In Wisconsin 40 percent of the Federal funds for part C are administered by the State Department of Public Instruction while 60 percent is administered by the State Board of Vocational, Technical and Adult Education. The State's alocation under part C amounts to about 250,000 per year, about $25,000 of which is used for administration of the Research Coordinating Unit.

The full impact of research funds is difficult to trace. However, in Wisconsin these funds have been used to identify the many problems faced by vocational education administrators, supervisors and teachers. These problems have been solicited to try and solve some of the problems identified. Two consultants help local persons design and develop projects to meet these problems.

Job requirements are constantly changing. Consequently, research funds are used to conduct statewide evaluations of several curriculums to find out from employers and former students how the curriculum is meeting their needs and what their recommendations are for improvement.

Other funds have been used to study educational needs of disadvantaged and handicapped, and field testing of individualized instruction. Generally, the research funds are used to study three broad categories: (1) the world of work, (2) the curriculum or instructional processes, and (3) the student and his needs.

Projects relate to study of occupational requirements, new and improved programs, updating of curriculum, follow-up of students, student vocational interests, information dissemination.

A continuous dissemination service from 60,000 documents on microfiche is provided to local districts to assist in providing results of research findings, curriculum materials and related information. These data and information helps local districts when analyzing needs and developing curriculum to meet these needs.

Projections for research funds needed in 1977 amount to nearly $330,000 of Federal funds. Following are brief summaries of two important research projects:

Convergence Plan for Vocational Education Researsh in Wisconsin

To determine if the convergence technique could be applied to vocational education problems in Wisconsin to obtain a valid plan, vocational educators were interviewed to determine critical problems in vocational education in Wisconsin. R.C.U. reports and additional literature were reviewed to isolate more potential problems. These problems were edited and used to construct the Research Problems Survey Form. This instrument was sent to administrators in Wisconsin vocational-technical schools; LVEC's; Wisconsin Board of Vocational, Technical and Adult Education staff members; selected Department of Public Instruction staff members; and Steering Committee members.

Major problems identified at the secondary school level related to developing career education programs and related instructional materials, designing effective vocational counseling programs, and identifying valid career decision making procedures. In the post-secondary VTAE system, emphasis was given to research focused on techniques for determining the need for vocational programs; program, student and staff evaluation; identifying the cost/effectiveness of programs; and developing effective career education programs. Five major phases were identified for the research matrix. The first phase is concerned with the identification and analysis of needs. Phase II focuses on the design of the systems required to attain the major goal of improved vocational education. Phase III specified research on subsystems. Research procedures for implementing and integrating new subsystems with the existing system are included in phase IV. The last phase is concerned with evaluation.

The research matrix developed in this study can be of value in establishing a coordinated program of vocational research in Wisconsin.

Industrial Safety Education for Small Industries

A project team and contributions from numerous public and private agencies, industries, and VTAE district schools, developed this series of safety training courses suitable for use by small Wisconsin industries who emply 100 or less employees. The units include an overview of industrial accident prevention, equipment and tools as potential hazards, requisites for safe, healthful place of employment. Each unit includes a content outline, resources and materials and description of expected student behavior.

STATE ADVISORY COUNCIL

The State Advisory Council has performed an invaluable service in Wisconsin in fulfilling its statutory obligation for the third party evaluation. It has also been a dynamic force in addressing certain evaluations. They have taken an active interest and have played a priority problems through contract research in conducting these significant role in matters of concern to vocational education through the legislative process and through the National Advisory Council.

SUMMARY AND RECOMMENDATIONS

Much of the progress made in the State in vocational, technical and adult education may be ascribed to the availability of categorical Federal aids. These aids have been focused sharply on problem areas which have not been addressed through State funding sources. In recent years 25–40 postsecondary job training programs have been approved two times per year by the State board. Approximately one-half of these are new programs in the State. Many of these programs were initiated as projects under Federal programs. Without the inducement of Federal aids, many high-priority programs would not be initiated. In brief, Federal money have provided a major developmental factor in vocational education. Wisconsin is unique in several respects concerning its organization in its areas of emphasis. The major thrust of Federal money has been at the post-high school level balancing university and baccalaureate programs in a vigorous thrust of concern to the majority of the people. This thrust is completely lost in the Better Schools Act which folds the supporting acts into revenue-sharing schemes confined to secondary level. The Community College Act which might be expected to pick up some of this funding has not faired well and threatens this State with an equal mismortune in overturning the orgainzational structure in this State. It provides a mechanism for co-optation of the system by either the academic policy structures or by the excesses of labor economics which are forces that theretofore have been kept in reasonable balance in Wisconsin. If we were to make a single recommendation, it would be to restore the viability of the Bureau of Vocational Education in the USOE and to update the 1972 amendments to attune the system to the changing social patterns and social needs.

EXEMPLARY PROJECTS APPROVED UNDER PART D, PUBLIC LAW 90-576 BY STATE BOARD STAFF EXEMPLARY PROJECT REVIEW COMMITTEE, WISCONSIN POSTSECONDARY VTAE, FISCAL YEAR 1973

[C=Continutation in years]

Project No.	Project description	Federal funds	Cumulative Federal funds
01.026.151.313 (C2)	"Audio-Visual Aids for Medical Laboratory Technician." To expand audio-visual approaches to instruction in medical laboratory technician program	$2,363	$2,363
02.036.151.313 (C2)	"Mobile Career Planning Unit." To develop and provide information about the world of work and opportunities to prepare for occupational pursuits throughout the VTAE district	26,400	28,763
02.037.151.313 (C2)	"Career Consultant Project." Continuation of a cooperative project with UW–La Crosse to provide career counseling to students of higher education who are considering changes in career objectives	21,348	50,111
03.013.151.313 (C3)	"Individualizing Instruction for Vocational-Technical Students." To develop personalized units of instruction supplemental to laboratory skill training courses	16,433	66,544
04.037.151.313	"Integrated Course in Occupational Therapy Assistant." To develop an improved and broadened general education course for 1-year health occupations students	784	67,328
05.109.151.313 (C3)	"Career Information Service." To identify potential disadvantaged students and provide them with career opportunity information through a peer group information officer corps	14,490	81,818
08.024.151.313 (C2)	"Career Decisions of H. S. Students." To establish career information libraries with audio visual materials in each high school in the VTAE district	15,125	96,943
08.026.151.313	"Project Career Exploration." A pilot project to develop career exploratory curriculum in selected areas for the secondary level	2,930	99,873
11.020.151.313	"Health Occupations Core Curriculum." To identify and develop core curriculum instructional units based on common competencies in various health occupations	619	100,489
12.033.151.313	"Providing Relevant In-Service Experience for Instructers." Instructors visit workers on the job to gain current occupational information to incorporate into curriculum	3,112	103,601
16.038.151.313	"Career Information Center for Area High Schools." To provide realistic career information in the form of audio-visual packages on a permanent loan basis to 11 high schools, a camp, and 3 Indian Communities in the VTAE District	24,179	127,780
02.034.151.313	"Individualized Instruction for Rural Fire Service Instructors." To develop and evaluate curriculum, media, and modes of instruction for part-time fire service personnel	17,189	134,969
C-04.005.151.313	"Model Internship in Fashion Merchandising." To implement and field test a model for internship-seminar to bridge the gap between training and job placement in fashion merchandising field	1,148	135,117
C-19.023.151.313	"Study of Vocational Assessment." To assess the diagnostic skills and accuracy of predictions of vocational rehabliitation outcomes	9,228	144,345

WYOMING

State Director—Dr. Fred P. Black

INTRODUCTION

Occupational education programs in Wyoming are student-centered programs rather than subject-centered programs. Present programming is organized and approved on the basis of labor market opportunities which exist in the State, the region, and ultimately across the country. The rapidly expanding community college system which includes expanded manpower programs continues to expand services to the increasing numbers of people. Combined, these institutions offer a wide choice of occupational preparatory and supplemental experiences to the people of Wyoming. Forty-one public school districts, seven community colleges, and two State institutions and the University of Wyoming participated in the Federal funds distributed from the Department of Education since fiscal year 1964.

Enrollment Changes:

1964	4, 950
1968	8, 500
1972	15, 100
1977	24, 000

a. Job Training Enrollment

	1964	1968	1972	1977
Secondary	3, 800	6, 000	11, 100	16, 000
Postsecondary	1, 000	2, 000	3, 000	6, 000
Adult	150	500	1, 000	2, 000
Total	4, 950	8, 500	15, 100	24, 000

b. General Description

As a result of the significant activity in the establishment of new programs since 1968, together with the expansion and modification of existing programs, a record number of students were served under the provisions of the total program concept including Federal, State and local effort. It is evident that the major recipients of occupational education services have been those enrolled in grades 7 through 12. However, it is also important to note that the postsecondary programs have expanded tremendously to serve a greater number of students, also. Significant, too, are the adult program services which provided preparatory and supplemental occupational experiences.

c. Postsecondary Courses

Postsecondary occupational education programs are the most rapidly expanding programs in Wyoming. Since 1968, three additional community colleges were established bringing a total of seven colleges serving the State. These colleges have stressed occupational programming and are presently providing 65 percent vocational student ratio.

d. Disadvantaged Students

1964 (1)	
1968	50
1972	1, 350
1977	2, 200

[1] Not reported.

There were fewer specific areas of economic depression and high unemployment in Wyoming during 1972 than in 1968. The major concentrations of economically depressed still are found in the larger communities and a few remote counties. The increased size of farm and ranch units and the decreased size of agricultural families have caused most of the counties to lose population during the past ten years. Secondary occupational education programs offer the best hope for organizing occupational instruction to meet the needs of these individuals for employment into which they will go.

e. Handicapped Students

1964 (1)	
1968	35
1972	1, 529
1977	2, 400

[1] Not reported.

Considerable progress was made during the past 4 years in the establishment of programs to serve handicapped persons. There were a number of problems that had to be overcome in the initiating of these special types of programs. In the first place, it was not considered to be in the best interest of students to attempt to recruit and enroll them in regular programs without developing special techniques, providing special equipment, and giving special attention to individualized instruction. Consequently, a number of conferences were conducted throughout the past 2 years with consultants from the University of Wyoming, the Department of Vocational Rehabilitation, the Office of Exceptional Children and others from across the State who were already involved in assisting handicapped students.

Nearly 3,400 handicapped persons are identified in Wyoming and only 1,529 are presently being served in ongoing occupational programs. A great need still exists to serve better this group of persons.

These handicapped include trainable mentally retarded, educable mentally retarded, hard of hearing, deaf, speech impaired, visually impaired, emotionally disturbed, crippled, and those with learning difficulties.

f. Adults

1964	715
1968	845
1972	955
1977	3, 000

Occupational programs for upgrading and retraining adults are considered a major goal for eductaional institutions in Wyoming for the next 4 years. Rapid expansion of vast energy resources demands trained and efficient manpower resources for the coming decade.

g. Financing

PART B—EXPENDITURES

	Federal	State-local
Year:		
1964	$185,000	$915,000
1968	450,000	1,800,000
1972	700,000	3,100,000
1977	1,000,000	5,500,000

Four factors are considered in the distribution of part B funds as follows: (1) Labor market needs (2) occupational education needs (3) ability for the local educational agency to pay, and (4) excessive costs. Major consideration is given to the ability to pay factor. The Part B formula used in distributing both State and Federal funds is in a range of 15 percent of costs for instructional salaries, equipment, and travel. The ability to pay is established by determining the potential taxable wealth on each student in the district.

Wyoming does not have a disparity between its city and rural population. A significant demand for state support for occupational education has surfaced. Federal funds have not met the increased demands for the programs nor the increased costs.

It is quite significant to point out that for each Federal dollar expended in the State of Wyoming for occupational education more than four dollars of State and local funds are generated. How long this generation of State and local dollars can be maintained remains to be seen. However, with full funding of the Vocational Education Amendments of 1968 considerable advancements can be made toward meeting unmet needs in the fields mentioned above.

h. Construction and Equipment

No Federal moneys allocated for construction of new facilities.

Equipment:	
1964	(1)
1968	45,000
1972	70,000
1977	150,000

[1] Not reported.

Equipment purchases under part B programs range from 25 to 33 percent of each year's allocation.

OTHER FEDERAL PROGRAMS

a. Exemplary Programs

1964	1968	1972	1977
None 0	None 0	12 $104,000	25 $200,000

Location	Title of project	Number of students served	Level
Lovell	Graphics Communications for Disadvantaged Students	34	9-12.
Rawlins	Graphics for Career Education	54	9-12.
Wheatland	Graphics Occupations in a Rural Community	32	9-12.
Sheridan	Career Farm Mechanics	44	9-12.
Torrington	Career Exploration in a Rural Community	450	7-9.
Kemmerer	World of Work Awareness	850	K-6.
Pinedale	Career Orientation in an Isolated Rural Community	640	7-12.
Thermopolis	Comprehensive Career Education	1, 205	K-12.
Cody	Career Orientation	610	7-9.
Farson	Career Home Economics	80	7-12.
Cheyenne	Career Food Services for Disadvantaged Students	350	7-9.
Riverton	Career Programs in Auto Mechanics, Graphics, and Building Trades.	380	10-12.

b. Residential Occupational Programs

The seven community colleges are designated as area vocational schools in Wyoming.

c. Consumer and Homemaking

ENROLLMENTS

	1964—Vocational home economics	1968— Homemaking	1968— Gainful home economics
Secondary	4, 400	4, 800	60
Postsecondary	0	0	100
Adult	100	200	0
Total	4, 500	5, 000	160

	1972					
	Part F—Consumer homemaking			Part B—Occupational home economics		
	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	6, 100	730	65	200	45	24
Postsecondary	0	0	0	120	20	5
Aduit	200	NR	NR	0	0	0
Total	6, 300	730	65	320	65	30

No significant change has resulted by supplying one-third of part F, consumer homemaking funds to depressed areas. Wyoming's allocation of $45,000 provides a very limited program thrust.

d. Cooperative Education

1964	0
1968	0
1972	797
1977	1, 500

Cooperative programs have been successful in utilizing the business sector by providing vocational opportunities which normally cannot be provided in most school settings. A major portion of the expansion of vocation offerings in Wyoming is a direct result of the availability of funds from part G of the act. More new (54) programs were implemented under part G than any other source.

e. Work Study

1964	0
1968	70
1972	80
1977	100

Work-study requires close monitoring for effective use of these funds. For the time-dollar ratio, the results of these funds are marginal.

f. Research and Training

Limited funding of $16,000 to 1972 has handicapped a rather valuable program for supporting occupational programs. Research efforts have been directed at employment opportunities, innovative curriculum development and pupil followup systems.

ADVISORY COUNCILS

The advisory council has promoted occupational education to the general public through the development of brochures, TV films, and public hearings.

The advisory council is presently conducting a formal evaluation of the total occupational offerings in Wyoming at all levels of education. A complete report of this evaluation together with recommendations will be made to the State Board.

The advisory council has acted as an agency to which individuals or agencies may express their concerns regarding occupational education in Wyoming.

SUMMARY AND RECOMMENDATIONS

Federal funds over the past 10 years have provided occupational education programs in Wyoming a stimulation for new program development at the local level. However, at a time when local and State resources are utilized to their fullest, more Federal resources could be effectively placed at the local level. Wyoming's allocation of approximately $1.1 million is somewhat constricted through set-aside funds for special need individuals particularly disadvantaged. New program development could come much more rapidly with a larger proportion of funds in the exemplary program area. The Better Schools Act could definitely encourage new program development without the restriction of special set-aside programs.

PUERTO RICO

Assistant Secretary for Vocational Education—José Lema Moyá

INTRODUCTION

The Commonwealth of Puerto Rico has recognized the importance of developing its human resources to the maximum. The industrial development program made this realization imperative. The Commonwealth has made heroic efforts to meet this challenge. For over the past two decades, it has destined 33 percent of the total annual budget to fund public education on the island. No State of the Union and no country in our hemisphere can match our public record of continued State support to education. But this is not enough. We are at the end of our resources, for we cannot expect the Commonwealth to devote a still larger part of its resources to education. We need help from the Federal Government and we need such aid in a portion commensurate with the degree of our needs.

During fiscal year 1972–73, $43,194,585 were devoted to VTE in Puerto Rico of a total educational budget of $366,045,987. It represented 11.80 percent of resources destined for vocational and technical education.

Vocational and technical education has received special attention since the approval of the 1963 Vocational Education Act. At that time programs were revitalized to serve the needs of all areas of the community. In 1968 Federal legislation earmarked funds for special purposes. The 1968 Vocational Education Amendments made it possible to serve the community needs for human resources, yet it also served to reach groups that society had passed by. Since its approval, it has been possible to strengthen post-secondary offerings in vocational and technical education, both by upgrading the employed and preparing the unemployed. It has also served to reach the physically and/or emotionally handicaped and the culturally and educationally disadvantaged groups. Approximately $2 million have been expended annually in vocational education for special groups. The emphasis has been on individuals rather than in programs.

In Puerto Rico, the implementation of Federal legislation has had a tremendous effect in vocational-technical education. It is evidenced in the growth rate of the institutions that prepare our human resources for the world of work. It is recognized that vocational education provides an essential service to the Commonwealth. If the island is to continue its economic development it is essential to prepare its manpower resources accordingly, through occupational education programs. Therefore, it is vital that funds be made available for this purpose to the Commonwealth, through Federal legislation.

For the last 10 years vocational education in Puerto Rico has been incrementing its services and making efforts to keep itself in tune with the latest technological advances. The number of programs offered and student enrollments have grown steadily. Besides increasing its enrollments and programs, the VTE programs have taken steps to intensify the professional development of teachers and supportive staff and improve physical facilities.

The 1968 Vocational Education Amendments provided the thrust to make occupational education available to the greatest number. The total enrollment of 90,778 in 1963, increased to 117,924 in 1968, which represented a 23.1 percent growth rate. The increase in total enrollment continued in 1972 with 134,431 or 12.2 percent more than in 1968. It is estimated that in 1977 the vocational technical education total enrollment will be in the vicinity of 154,109 as projected in table I.

a. Table I

TABLE I.—JOB TRAINING BY PROGRAMS AND LEVELS, FISCAL YEARS 1962-63, 1967-68, 1971-72, AND 1976-77[1]

Programs & level	1962-63	1967-68		1971-72		1976-77[1]	
	Enrollments	Enrollments	Growth rate percent	Enrollments	Growth rate percent	Enrollments	Growth rate percent
Agriculture:							
Regular student (secondary)	5,691						
Young farmers	766						
Adult farmers	3,329						
Secondary		4,641		2,700		3,189	
Postsecondary		190		88			
Out-of-school youth		358		390		600	
Adult		2,070		4,150		4,800	
Disadvantaged		79		[2] (4,649)		(5,337)	
Handicapped							
Total enrollments	9,786	7,338	−25	7,328	−0.1	8,589	14.6
Office education:							
Secondary	9,506	14,925		15,886		17,598	
Postsecondary	61	677		881		1,125	
Elementary				47			
Out-of-school youth		1,493		1,881		1,656	
Adult		4,069		1,636		1,870	
Disadvantaged				(8,067)		1,946	
Handicapped				(100)		(220)	
Total enrollments	9,567	21,164	54.7	20,331	−3.9	22,249	8.6
Distribution and marketing:							
Secondary	681	1,121		2,417		2,900	
Postsecondary		198		873		1,196	
Out-of-school youth				452			
Adult	7,000	6,911		7,362		12,802	
Disadvantaged		44		(1,774)		(1,800)	
Handicapped				(600)		(240)	
Total enrollments	7,681	8,274	7.0	11,104	25.4	16,897	34.0
Guidance and counseling:							
Elementary				12,542		19,000	
Secondary	[3] 198,163	225,130		247,820		251,000	
Postsecondary		780		828		2,200	
Out-of-school youth		825		6,527			
Others				505			
Total enrollments	198,163	226,735	12.6	268,222	15.4	278,727	43.9
Health occupations:							
Industrial cooperative education		398		397		350	
Postsecondary	358	756		284		1,150	
Out-of-school youth		(766)		650			
Adult		68		526		870	
Disadvantaged		174		(1,279)			
Handicapped						(200)	
Total enrollments	358	1,396	74.3	1,857	24.8	2,370	21.6

See footnotes at end of table.

TABLE I.—JOB TRAINING BY PROGRAMS AND LEVELS, FISCAL YEARS 1962-63, 1967-68, 1971-72, AND 1976-77,[1]—Continued

Programs & level	1962-63	1967-68		1971-72		1976-77	
	Enrollments	Enrollments	Growth rate percent	Enrollments	Growth rate percent	Enrollments	Growth rate percent
Home Economics:							
Family living:							
Elementary				490		[5] (565)	
Secondary	[4] 44,238	45,588		52,314		53,353	
Postsecondary							
Out-of-school youth							
Adult	7,759	11,828		12,467		12,775	
Disadvantaged		(6,621)		(26,566)			
Handicapped				(161)			
Subtotals	51,997	57,416		65,271		66,128	
Occupational Education:							
Elementary							
Secondary		875		2,076		2,836	
Postsecondary						739	
Out-of-school youth		212		485			
Adult		955		1,652		1,950	
Disadvantaged		(817)		(2,754)		(3,465)	
Handicapped				(92)		(140)	
Subtotals		2,042				5,535	
Total enrollments	51,997	59,458	12.5	69,848	14.4	71,663	3.0
Hotel school:							
Postsecondary		[5] 56					
Disadvantaged							
Total enrollments		56					
Technical education:							
Postsecondary	335						
Pretechnical		86		160		250	
Technical courses		652		1,242		1,457	
Adults		81		297		300	
Disadvantaged				(160)			
Handicapped							
Total enrollments	335	829	59.5	1,639	51.2	2,007	40.94
Vocational industrial education:							
Preparatory and trade extension	2,815						
Evening	257						
Veterans	(280)						
Secondary	7,117	7,866		11,205		19,206	
Postsecondary		145		503		3,696	
Prevocational							
Industrial cooperative education	1,032	412		359		454	
Out of school youth		3,431		[6] 8,186		2,722	
Adult		5,771		2,370		4,371	
Disadvantaged		1,840		(11,892)		(3,001)	
Handicapped				(274)		(830)	
Total enrollments	11,591	19,465	40	22,628	13	30,449	25
Manpower Programs [7]		[6] 1,693		1,312		([8])	
Work Incentives programs [7]				4,114		([8])	
Veterans programs [7]		1,838		2,310		([8])	
Work study programs [7]				(544)		(800)	
Total enrollments	11,531	19,465	40	330,424	94	30,449	−90
Special education [7]				465		([8])	
Grand total	9,1315	117,924	22	131,431	12	154,221	12

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[1] Projections.

[2] Number in parenthesis indicates duplicated count.

[3] Not included in grand total.

[4] Includes 2,133 girls in native handicrafts and 1,937 boys in exchange classes.

[5] Under the VTE program of fiscal year 1967-68.

[6] Includes 935 students in 4 work-study centers in 1970-71 and 1,111 in 1971-72.

[7] Not under the Vocational Education Amendments of 1968 and not included in grand total.

[8] No projections available.

b. Table II

TABLE II.—SUMMARY OF ENROLLMENTS AND RATE OF CHANGE FOR FISCAL YEARS 1963, 1967-68, 1971-72, 1976-77

Programs and levels	1963	1967-68	Growth rate (percent)	1971-72	Growth rate (percent)	1976-77 [1]	Growth rate (percent)
Agriculture	9,786	7,338	25	7,328	00.1	8,589	14.6
Office education	9,567	21,164	54.7	20,331	3.9	22,249	8.6
Distribution and marketing	7,681	8,274	7.	11,104	25.4	16,897	34.0
Guidance and counseling	198,163	226,735	12.6	268,222	15.4	278,727	43.90
Home economics	51,997	59,458	12.5	69,484	14.4	71,663	3.0
Health occupations	358	1,396	74.3	1,857	24.8	2,370	21.6
Technical education	335	829	59.5	1,699	51.2	2,007	40.9
Vocational industrial education	11,591	19,465	40.	22,628	24.4	30,449	25.68
Grand total	91,315	117,924	22.	134,431	12.	154,224	12.

[1] Projected.

c. Table III

TABLE III.—POSTSECONDARY LEVEL, ENROLLMENTS FOR YEARS 1963, 1967-68, 1971-72, AND PROJECTIONS FOR 1976-77 [1]

Program	1963	1967-68	1971-72	1976-77
Agriculture		548	478	600
Office education	61	2,170	2,762	2,781
Distribution and marketing		198	1,325	1,195
Guidance and counseling [1]		1,605	7,355	8,727
Home economics		212	485	739
Hotel school		56		
Health occupations	358	756	934	1,150
Technical education	335	662	1,242	1,457
Vocational-industrial education	2,845	3,576	8,694	6,418
Total [3]	3,599	8,187	15,920	14,340

[1] Information on an institutional basis not available.
[2] Not included in totals.
[3] Totals include postsecondary students and out-of-school youth.

d. Brief description of progress made in Programs for the Disadvantaged in Puerto Rico

The 1968 Vocational Education Amendments made it possible to provide special programs for the disadvantaged students. It earmarked for the first time funds for groups of this sort. Prior to 1968 the Commonwealth of Puerto Rico gave attention to these groups although within strict budgetary limitations.

In fiscal year 1962–63 a total of 1.276 type C students were trained in the vocational industrial education program. However with the thrust provided in 1968 the enrollments climbed to 11,268 students in different programs. Total enrollment reached 53,351 in 1971–72 and projections for 1977 are in the vicinity of 53,015. If federal support is provided the VTE program will continue its support to these special programs designed to reach individuals that society had passed by. (See table IV.)

e. Brief description of progress made in programs for Handicapped Students

Vocational education for the handicapped was initiated during the school year 1969–70 under Public Law 90–576, Vocational Education

Amendments of 1968. During this year 621 handicapped persons were served in the vocational education program. Two hundred sixty one of these students participated in special vocational programs designed to provide prevocational education for the educable mentally retarded.

During the year 1971–72 special vocational programs for the handicapped were continued and expanded, from which a total of 1,692 persons benefited. Five hundred fifty eight of the students served in special programs received prevocational training, 490 received occupational training and 88 received on the job training in coordination with the Vocational rehabilitation program of the department of social services. All students served in special vocational programs were referred by the special education program for the handicapped.

It is expected that by the year 1977, vocational education programs for the handicapped will be expanded to serve 3,121 handicapped persons.

The target group served is mostly the mentally retarded, according to the priorities established by the State, although the orthopedically handicapped, the visually handicapped and the emotionally disturbed are also being served.

The Federal support to this kind of program is of paramount importance if it is to continue service in the future. The 1968 amendments specially earmarked funds have provided the means to serve these groups on a continuous basis. (See table IV.)

TABLE IV.—SPECIAL NEEDS, DISADVANTAGED, AND HANDICAPPED ENROLLMENTS FOR FISCAL YEARS 1962 63, 1967-68, 1971-72, AND 1976-77

Type of program	1962-63	1967-68	1971-72	[1] 1976-77
Handicapped			1,692	3,121
Disadvantaged	[2] 1,276	11,268	53,351	53,015
Special needs			[3] 3,870	[4] 1,700

[1] Projections.

[2] This enrollment corresponds to students enrolled in type C, trade and industry. Programs according to definition in previous legislation.

[3] Two projects, serving about 3,144 special needs students became part of the regular program.

[4] Included in this figure are 14 handicapped students participating in a special program sponsored under sec. 102 b. Hence it is a duplicated count.

f. Adults

The VTE program provides training or retraining to employed, underemployed, or unemployed adults. These programs are either of a compensatory nature to upgrade the employed or underemployed, or preparatory to equip the unemployed with skills for job placement. No statistics are kept of adults' enrollment on the basis of compensatory or preparatory offerings. Consequently, it is not possible to compare them with the enrollments of Manpower. Table V lists adult enrollments on a total basis and enrollments of the Manpower program under Federal legislation (87–415) which works in coordination with the Department of Labor, but is administratively under the Commonwealth VTE program.

TABLE V.—ADULT LEVEL, ENROLLMENTS FOR YEARS 1963, 1967-68, 1971-72, AND PROJECTIONS FOR 1976-77

Program	1963	1967-68	1971-72	1976-77
Agriculture	4,095	2,070	4,150	4,800
Office education		4,069	1,636	1,870
Distribution and marketing	7,000	6,911	7,362	12,802
Guidance and counseling				
Home economics (Occupational)		955	1,652	1,960
Family Living [1]	7,759	11,828	12,467	12,775
Health occupations		68	526	870
Technical education		81	297	300
Vocational industrial education	257	5,771	2,370	4,371
Total	11,352	19,925	17,993	26,973
Manpower programs [1]		1,693	1,342	(2)

[1] Not included in totals.

[2] Not available.

g. (*i*) *Financing.*—The Commonwealth of Puerto Rico, Department of Education serves as both a State and a local educational agency in Puerto Rico. It is the sole educational agency in Puerto Rico. Its administrative structure is a highly centralized one. The island is divided into 81 school districts organized in six educational regions for operational purposes. Services are provided to local units according to an assessment of needs.

Budget is detailed on program basis and no funds are allocated to local units. All the financial operation takes place at the central office level.

Matching funds for vocational education comes from the educational budget as assigned by the legislature. No matching funds come from the school districts or from the regions.

The Federal dollar is matched by the local dollar on a 2 to 1 basis (see table VI).

(ii) *Breakdown of funds going to cities which have a population in excess of 250,000.*—Due to the fact that no funds are allotted to local school districts accounting is not carried on city or district basis but islandwide. Information to prepare a breakdown of funds going to cities which have a population in excess of 250,000 is not available.

Comments on the Better Schools Act of 1973

Under the present legislation the formula for the distribution of funds provides in some programs a set aside to be distributed among the Commonwealth of Puerto Rico Department of Education and others. This is the case of parts D and G (exemplary programs and projects and cooperative vocational education program) of the vocational education law while the same basis with the other educational agencies in the United States is used for parts B and F. Puerto Rico has been claiming for treatment under the same basis as other educational agencies in United States for all the programs.

The Better Schools Act provides treatment to Puerto Rico on a set-aside basis for all the programs including vocational education. In the case of Puerto Rico, the formula for distribution in Better Schools Act is completely opposite to our claim.

TABLE VI.—ENROLLMENT IN VOCATIONAL AND TECHNICAL EDUCATION AND EXPENDITURES FROM FEDERAL AND COMMONWEALTH FUNDS, 1967-68 THROUGH 1971-72

Year	Total enrollment	Total funds	Commonwealth funds [1]	Federal funds
1971-72	$189,433	$37,836,088	$21,918,392	$15,917,696
1970-71	181,825	33,193,810	19,998,200	13,195,610
1969-70	182,534	29,756,677	16,607,790	13,148,887
1968-69	172,417	23,443,846	13,817,900	9,625,946
1967-68	161,588	20,236,113	11,881,100	8,352,013

[1] Funds for industrial arts are not included.

h. Brief Description of Progress in Construction and Equipment

The number of vocational schools planned doubled from fiscal year 1963 to fiscal year 1968. In fiscal year 1971–72, 58 academic high schools were equipped to offer vocational training in 141 shops. As of 1971–72 eight area vocational schools were on the planning stages and one was being constructed. It is expected that by 1976–77 five of the eight schools planned will be on the construction stages. It is necessary to continue working on a construction plan steadily if the VTE program is to keep the pace of the economic development of the Commonwealth. More area vocational schools will be needed specially in areas of high unemployment. Likewise, it will be necessary to foster the transformation of academic schools to equip them to provide vocational training. Table VII describes a sequence of the construction program of area vocational schools in Puerto Rico.

TABLE VII.—NUMBER OF SCHOOLS PLANNED, CONSTRUCTED, EQUIPPED AND EXPANDED, FISCAL YEARS 1962-63, 1967-68, 1971-72, 1976-77

	1962-63	1967-68	1971-72	[1] 1976-77
Planning	3	6	8	
Construction and equipment		1	1	5
Expansion	2			
Total	5	7	9	5

[1] Projected.

TABLE XIII.—INVESTMENT FOR CONSTRUCTION AND EQUIPMENT FOR VOCATIONAL SCHOOLS

Year	Total cost	Federal Vocational Education	EDA [1]	State
		1963-68		
1963				
1964				
1965	2,958,671.99	1,364,646.90		1,594,025.09
1966	370,000.00	160,000.00		210,000.00
1967	1,314,766.00	823,766.00		491,000.00
1968	2,635,200.00		2,075,200.00	560,000.00
Subtotal	7,278,637.99	2,348,412.90	2,075,200.00	2,855,025.90

See footnote at end of table.

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TABLE XIII.—INVESTMENT FOR CONSTRUCTION AND EQUIPMENT FOR VOCATIONAL SCHOOLS—Continued

Year	Total cost	Federal Vocational Education	EDA[1]	State
		1969-72		
1969	1,791,500.00	150,000.00	1,264,000.00	377,500.00
1970	5,737,300.00	50,000.00	4,584,800.00	1,102,500.00
1971	1,620,000.00	500,000.00		1,120,000.00
1972	3,000,000.00	500,000.00		2,500,000.00
Subtotal	12,148,800.00	1,200,000.00	5,848,800.00	5,100,000.00
		1973-77		
1973	5,343,350.00	325,350.00		5,018,000.00
1974				
1975[2]	11,407,950.00	500,000.00		10,907,950.00
1976[2]	7,089,000.00	500,000.00		6,589,000.00
1972[2]	2,205,000.00	500,000.00		1,705,000.00
Subtotal	26,045,300.00	1,825,350.00		24,219,950.00
Grand total	45,472,737.99	5,373,762.00	7,924,000.00	32,174,975.09

[1] Economic Development Administration, Department of Commerce.
[2] Projected.

PUBLIC LAW 90–576 OTHER FEDERAL PROGRAMS

Exemplary Programs and Projects

Exemplary programs were initiated in 1969–70 with the appropriation of Federal funds for this purpose. The projects were aimed at bridging the gap between education and earning a living and constitute a strong emphasis in the vocational education annual and long range plan of work. These programs and projects were previously developed under the supervision of and in cooperation with the office for special education programs in vocational and technical education. Since fiscal year 1972–73, exemplary projects are coordinated at the research and curriculum development coordinating unit.

Allocations of funds are indicated in the following table:

School year:	*Funds allocated*
1969–70	$177,915
1970–71	$177,113
1971–72	$217,985
1972–73	$217,985
1976–77 (projected)	$298,594

The following exemplary projects were designed, planned, and/or initiated:

TABLE IX.—EXEMPLARY PROGRAMS AND PROJECTS AND NUMBER OF PERSONS SERVED

Project No.	Projects and summary	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Voc. Ej. 001	Hostos exemplary vocational project for disadvantaged out-of-school handicapped and Young Adults, high school students, and potential dropouts.	706	1,249	1,405	"This project was transferred to the regular vocational industrial program".				
Voc. Ej. 002	The use of the Multiple channel equipment in the teaching of shorthand.	240	Secondary 114 and Post-secondary.	428 Secondary 211, Postsecondary 217.	"A final report is being prepared".				
Voc. Ej. 003	Introduction to occupations	In planning stage.	Secondary, 1,249.	Secondary 2,209.	"Was transfered to the Regular Guidance Program".				
Voc. Ej. 004	Production of six films for dissemination of occupational information to Junior and Senior High School students two (2) minutes each 16 mm. in black and white.	In planning stage. 6 seminars were organized.	Developmental stage.	3,099 different levels.		6,099			9099
Voc. Ej. 005	Exemplary project to develop innovative curriculum for home economics courses of consumer education.	Development of curriculum material.	do	(Tested in 7 schools) 275.					
Voc. Ej. 006	Model program in vocational agriculture and related areas for the rural areas of Puerto Rico (Cuchillas, Coroz	In planning stage.	Secondary 32 and adults 64.	Secondary 32	Secondary 24				
Voc. Ej. 008	The training of disadvantaged and unemployed youngsters from Planas, Quebradillas on methods and techniques of modern agriculture for the production of vegetables and minor crops.			Postsecondary 11.	Postsecondary 15.				

TABLE IX.—EXEMPLARY PROGRAMS AND PROJECTS AND NUMBER OF PERSONS SERVED—Continued

Project No.	Projects and summary	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Voc. Ej. 010	Exemplary model office program in the postsecondary courses of business education program.			(Initiated at the secondary level).	(Initiated 1972-73), 209.	260[1]			[1] 300
Voc. Ej. 009	Pilot project for the organization of a Pedagogical Resources Center for producing, testing, revising, and disseminating educational materials for regular, special, and postsecondary programs of vocational and technical education.			Initiated (January 1972). All levels	 All levels	 All levels	(January 1975) All levels		
Voc. Ej. 007	Carolina School District Sequential approach to career orientation and preparation.	Proposal submitted for approval to USOE.	(Initiated Feb. 1971).	8,535	9,255	11,320 [1]			[1] 15,320
Voc. Ej.	Research and development project in career education in the Humacao School District.			(Initiated May 1972).	7,549	7,600 (Ends June 1974).[1]			[1] 7,900
Voc. Ej.	Career education program at the Palmarejo Rural Second Unit in Lajas School District, to acquaint elementary and junior high school students with career possibilities.				Initiated (October 1972-73).				(1)

[1] Projected.

Note.—

	1972-73	1973-74	1974-75	1976-77
Elementary	417	421	433	450
Secondary	289	336	332	380
Total	706	757	765	830

a. Brief Description of Progress made in Some of the Exemplary Projects

1. *Hostos Special Vocational Training Center.*—The project was a cooperative effort of the vocational and technical education and the adult education programs. Locally, it is sponsored by the San Juan educational region and is located at the Hostos School in Rio Piedras, Puerto Rico. The project offers: (1) Vocational training within occupational clusters through the coordination of different vocational programs under an umbrella-type of training to provide mobility in job placement or progress; (2) academic instruction in reading, writing and elementary mathematics or courses toward high school equivalency to eliminate educational academic handicaps that impede progress in vocational training; (3) curriculum based on modules to permit each trainee to advance at his own pace and in line with his individual capacity; and flexible class scheduling to accomodate different types of students. The project functioned as an exemplary project from school year 1969–70 to 1971–72. The Department of Education is sponsoring this project with State funds at present.

2. *Multiple Channel System for Teaching Shorthand.*—This project planned in 1969–70, became operational in 1970–71 and lasted until 1971–72, and 428 secondary and postsecondary students, divided into eight groups were trained. The project was aimed to break away from the traditional method of teaching shorthand to bilingual students. Another eight groups using traditional techniques and equipment served as control groups to evaluate its results. In-service training of teachers was carried out and curriculum materials were developed. The project lasted 2 years and was successfully evaluated. It is now being transferred to the office education program and is to be developed in other schools within the school system of Puerto Rico.

3. *Model Program in Vocational Agriculture and Related Areas for the Rural Areas of Puerto Rico* (Cuchillas, Corozal).—This project deals with the training in vocational agriculture and related areas for rural Puerto Rico. It was developed with 32 students of 14 to 16 years of age, in the 8th grade at the Dr. Jose Padilla second rural unit, in Corozal. It covered training in farm production, ornamental horticulture, and farm administration to prepare students for employment on farming and farm-related occupations and to give them a foundation for further study in these fields. Short units

in skills and knowledge related to distribution, industrial arts, and home economics, suited for a flexible schedule, made possible an interchange of groups among these teachers and the vocational agriculture teacher. Remedial instruction was also provided in academic subjects, specially in mathematics and science. Curriculum materials were developed for the participating vocational areas. Ten of the participating students were employed in off-farm occupations, and 26 will continue full-time studies at the senior high school where they will enroll in more advanced off-farm occupations courses.

During school year 1972-73 the project was continued by the vocational agriculture program and served 24 participating students.

4. *Carolina School District Sequential Approach to Career Orientation and Preparation—Vocational Guidance.*—This 3-year project was funded under part D, Federal Commissioner's share. It was developed under the guidance program in coordination with other vocational education programs. It aims at providing guidance services, vocational training, and placement services to enrollees. The project will initiate its third year of operation. The program activities include three educational levels: elementary, junior, and senior. During the first 2 years of operation it has been very appealing to the school personnel and the community. The development of media, curricular materials and the involvement of staff in all activities were steps of utmost importance in the development of the project.

One of the important achievements of the project has been the realization on the part of the teachers, of the proper function of the school in the preparation of the students for a meaningful life role as a productive citizen. In its first year the project served 8,535 students, 9,255 in the second year, and it is expected to serve 11,320 in its third year.

5. *The Training of Disadvantaged and Unemployed Youngsters on Methods and Techniques of Modern Agriculture for the Production, Collection, Classification, Packing, and Cooperative Marketing of Vegetables and Minor Crops.*—This project aimed at providing out-of-school disadvantaged youth with training dealing with innovative techniques for the production, processing, and merchandizing of vegetables and fruits. It was initiated in 1971-72 in coordination with the Cooperative Development Administration, with 11 students at Cocos rural community in Quebradillas, all of whom were granted loans by the Future Farmers of America organization, to rent a 6-acre farm to establish an agricultural cooperative. During 1972-73 it served 15 postsecondary students, and it is expected to serve other 15 students during the school year 1973-74. The project's duration is 3 years which will be completed in November 1974. Plans are being made to apply for an extension until the end of school year 1974-75.

b. Residential Vocational Education

The vocational and technical education program has not established residential vocational schools as of now. The efforts of the program have been directed toward other areas of a higher priority. However, the VTE program might consider plans for establishing institutions of this nature in the future, if the funds are made available.

c. Consumer Homemaking and Occupational Home Economics

Consumer and homemaking education, designed to prepare youth and adults for the dual role of homemakers and wage earners, expanded program offerings as shown by an increase of 21,651 in the enrollment of students from 1963 to 1972. A total of 16,175 persons have been trained for employment from fiscal year 1964–65, when the first wage-earning courses were offered by the home economics program, to fiscal year 1971–72. In addition, the enrollment of disadvantaged persons served reached the peak of 26,656 in 1972.

With Federal funds appropriation the program for adults, especially designed and adapted to the needs of families from public housing areas, was expanded to serve 27 public housing projects in 1972 as compared to 17 in 1963 in a coordinated effort with the Puerto Rico housing development. Regular teaching positions for adults were increased from 33 to 66 in the same period of time. These teachers served homemakers, referred by the welfare division, offering training for improving the family diet with the use of donated Federal foods. Consumer education programs were strengthened in economically depressed areas to assist families in the best use of their income according to their individual needs.

Emotionally handicapped inmates from the State Penitentiary for Women were served by five programs, organized in coordination with the Justice Department. Out-of-school youth attending a program for drug addicts were also trained in courses related to home economics.

An exemplary project on innovative curriculum modules and other teaching materials for consumer education courses was developed for the secondary level, covering the aspects of consumer and homemaking education, home management and family finances, food and nutrition; housing; and clothing and textiles.

For fiscal year 1973–74 a special demonstration program will be developed to assist families from isolated rural areas through the use of a mobile training center. (See table X.)

TABLE X.—ENROLLMENTS

	1962-63 (Fiscal year 1963)	1967-68 (Fiscal year 1968)		1971-72 (Fiscal year 1972)								1977 (projected)							
				Part F—Consumer homemaking				Part B—Occupational home economics				Part F—Consumer homemaking				Part B—Occupational home economics			
	Vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Total	Disadvantaged	Handicapped	Regular	Total	Disadvantaged	Handicapped	Regular	Total	Disadvantaged	Handicapped	Regular	Total	Disadvantaged	Handicapped	Regular
Secondary	40,074	45,588	875	52,804	16,476	161	36,167	2,076	783	7	1,286	54,533	17,394	200	36,939	2,906	1,000	76	1,830
Postsecondary			212					485	431	54						779	750	29	
Adult	7,759	11,828	955	12,467	10,180		2,287	1,652	1,540	31	81	12,875	10,500		2,375	2,035	1,860	45	130
Total	47,833	57,416	2,042	65,271	26,656	161	38,454	4,213	2,754	92	1,367	67,408	27,894	200	39,314	5,720	3,610	150	1,960

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d. Brief description of progress cooperative vocational education

The VTE program recognizes the importance of cooperative education. It is recognized that actual working experience has no substitute in occupational education. In tune with this, the Commonwealth VTE program has been implementing cooperative education for many years. Prior to 1968 there were no earmarked funds for such purposes but cooperative programs were sponsored. The 1968 Vocational Education Amendments specifically set aside funds for cooperative program. Since the 1968 Vocational Education Amendments cooperative enrollments have increased considerable (See table XI). Projections for fiscal year 1977 are 8,233. Federal support for cooperative vocational education should be continued if it is going to continue providing unvaluable on-the-job experiences to our students.

TABLE XI. COOPERATIVE VOCATIONAL EDUCATION ENROLLMENTS YEARS OF 1963, 1968, 1972, 1977

Program	1963	1967-68	1971-72	1976-77
Trade and industry	1,092	412	359	454
Office occupations	1,318	2,067	3,303	4,529
Distribution and marketing	681	1,121	2,417	2,900
Health occupations		398	397	350
Total	3,091	3,998	6,476	8,233

e. Brief description of the value of services in the work study programs

Work study programs are intended to provide students work experiences coupled with financial remuneration to economically deprived students enrolled in secondary and postsecondary levels. The programs seek to retain students in school until completion of the offerings. These services have been utilized successfully by the VTE program to reduce the dropout rate among students of the deprived school districts of the system. It is expected that if funds are available, these programs will be expanded.

TABLE *XII.—Work study programs enrollments years 1968, 1972, 1977*

1963	—
1967-68	—
1971-72	644
1976-77 (projection)	800

[1] Not available.

f. Description of the Value of Part C funds for Research and Development

The Commonwealth of Puerto Rico has accepted the responsibility of providing appropriate educational opportunities for all its population, and financial support has been provided to fulfill this responsibility. Vocational and technical education programs are designed and developed to satisfy the social and economic aspirations of persons of all conditions and at the same time to meet the needs of the economy. Efforts are being made by the Commonwealth Department of Education and other Government agencies to provide occupational-oriented training programs to meet present and prospective manpower needs.

Objectives for vocational and technical education research and research related activities on a long-range basis are directed toward stimulating, promoting and coordinating studies dealing with the assessment of needs for occupational education planning and development; development and use of curriculum and other instructional materials; vocational guidance and career choices; assessing the occupational and educational status of vocational education graduates and of school dropouts; and the evaluation of programs, projects, and services. The VTE objectives are also aimed at promoting staff leadership in research and the development of an information system for vocational and technical education.

The responsibility for developing the research programs has been entrusted to the Vocational and Technical Education Research Coordinating Unit (RCU), established in April 1968 persuant to part 4-c of the Vocational Education Act of 1963. The research coordinating unit operations have continued as a permanent activity under the 1968 amendments.

Puerto Rico is particularly vulnerable to any delay or lack of part C funds, since they provide approximately three-fourths of financing required for research projects in vocational-technical education.

Table XIII includes Puerto Rico research projects conducted under part C years 1971–72 and 1972–73.

f. Brief Summaries of three relevant research projects

a. Puerto Rico's Present and Prospective Technical, Skilled, and Clerical Manpower and Training Needs, 1968–1975

Summary.—The study was carried out in essentially six stages, as follows: (1) An analysis of present and prospective trends in the structural outlook of the economy's productive output was made, as well as of their manpower implications. (2) A survey of present and prospective occupational needs, as seen by employers, was undertaken using both the mail and the personal interviews technique. (3) An analysis of job orders put by employers with the Employment Service area offices was made, to collect relevant supplementary information on occupational needs. (4) More than 40 different firms were visited to gather information on the job content and requirements of more than 25 occupations found to be in short supply and posing difficulty to fill. (5) An analysis of present and planned training offerings through the public schools system was made to gain insights as to the extent to which the output from such programs meets the needs. (6) First hand information on the adequacy of existing shops and facilities was collected from vocational-technical teachers in service during 1968–69.

The main findings of the study in regard to economic and labor market conditions and manpower needs revealed a growing urgency for persons equipped with higher skills and more education. This is a challenge that changing economic systems have to face if future growth is not to be jeopardized. Data gathered in the course of the study indicated that most of the burden of providing the supply output needed to meet employment demand will have to rest with outside training institutions, particularly the schools, since employer training programs are limited to the larger firms and these are very few in number. Enrollment and output of vocational education programs, however, are not sufficient to meet prospective needs of industry for manpower in the occupational areas studied. Occupational education has not kept pace, in kind and quality, with the dynamics of employment demand.

b. The Development of Research Capabilities of Key Puerto Rico Professionals in Vocational-Technical Education

Summary.—The general purpose of the project was to contribute toward the efforts of the Puerto Rico RCU to expand the research capability of key Puerto Rico vocational educators. The immediate objective was the development of research proposals.

The project included 20 Puerto Rico educational professionals who had been identified by the Puerto Rico Department of Education as having shown the interest and aptitudes necessary for the development of skills fundamental to the identification of research problems, the design and implementation of research studies, and the development of research proposals.

c. A Cost-Effectiveness Analysis of the Vocational Education Program in Puerto Rico, 1971

Summary.—The purposes of this study were (1) to conduct a cost-effectiveness analysis of the vocational-technical education programs administered by the Department of Education; (2) to determine, to the extent possible, variations in unit costs of the vocational-technical education programs and curricula; (3) to identify factors contributing to variations in unit costs; and (4) to array programs from the highest rated utility function to the lowest.

The study also includes an analysis of the conceptual and methodological aspects of cost effectiveness and discusses the sources of data for measuring costs and benefits by programs, occupations, schools, and districts.

The relevance of this study stems from increased pressures on the agencies of the Government of Puerto Rico to justify their programs by the use of benefit-cost analysis.

TABLE XIII.—RESEARCH PROJECTS, PART C

Project title	Amount of part C funds committed	Fiscal year
1970-71 projects:		
1. Cost Effectiveness Analysis of the Vocational Education Programs in Puerto Rico.	$51,200.00	1970-71.
2. Administrative Utility Analysis of Programs in Vocational Education	50,700.00	1970-71.
3. The Development of Research Capabilities of Key Puerto Rico Professionals in Vocational-Technical Education.	9,381.00	1970-71.
4. A Staff Training Program on Grantsmanship for Research, Demonstration, and Exemplary Education Programs.	12,450.00	1970-71.
5. Follow-Up of Graduates of Vocational-Technical Courses, 1969-70	[1] RCU	1970-71.
6. Evaluation of Home Economics Occupational Program in Puerto Rico, 1964-68.	[1] RCU	1970-71.

Project title	Amount of part C funds committed	Fiscal year
1971–72 projects:		
1. Plan for the Reorganization of the Research Coordinating Unit of the Vocational-Technical Education Program in Puerto Rico.	5,000.00	1970–71 (carryover).
2. Job Analysis and Curriculum Development for Eight Trade and Industrial Occupations.	21,000.00	1970–71 (carryover).
3. Follow-Up of Graduates of Vocational Technical Courses, 1970–71	19,961.80	1971–72.
4. Survey of Professional Guidance and Counseling Needs in Puerto Rico, Grades 1–12.	8,349.00	1970–71 (carryover).
5. Professional and Technical Competencies Needed in the Preservice Vocational Agriculture Curriculum in Puerto Rico.	1,272.80	1970–71 (carryover).
6. Curriculum Development Basic to the Training of Individuals for Employment in Agri-Business.	2,000.38	1970–71 (carryover).
7. The Use of Machine Shorthand in Training of Highly Skilled Stenographers.	11,300.00	1970–71 (carryover).
8. A Model State Pedagogical Resource Center for Designing, Testing, Revising, and Disseminating Teaching, Audiovisual and other Educational Materials for Students of Regular, Special and Postsecondary Programs for Vocational-Technical Education in Puerto Rico.	66,681.26	1970–71 (carryover).
9. Evaluation of the Home Economics Occupational Education Program in Puerto Rico, 1964–68 (continuation project).	26,905.78	1971–72.
10. Consumer Patterns of the Puerto Rican Families	40,000.00	1971–72.
11. Business Vocabulary Count in Spanish	24,460.91	1971–72.
12. Directory of Vocational Technical Education in Public and Private Schools Offering Vocational Programs.	10,080.00	1971–72
13. Study to Identify and Classify Handicapped Students Enrolled in Vocational Technical Education Courses, 1971–72.	[1] RCU	1971–72.
14. Pilot Project for the Training of Pharmacist Salesmen	12,832.17	1971–72.
15. Follow-up of Graduates of the First Televised Course on Refrigeration Principles and Automobile Air Conditioning, Year 1971.	[1] RCU	1971–72.
16. Curriculum Development for a Course in Pharmacist Aid for the Health Occupations Program.	2,400.00	1971–72.
1972–73 projects:		
1. Business Vocabulary Count in Spanish	29,769.54	1972–73.
2. Follow-up Study of Graduates of Vocational and Technical Education Courses, 1971–72.	7,384.00	1972–73.
3. Study on Training Needs for Specialized Vocational Agriculture in Puerto Rico.	8,504.00	1972–73.
4. Study to Evaluate Students Achievement in the Different Business Subjects at the Mayaguez Educational Region.	3,317.74	1972–73.
5. Expansion of Job Placement and Follow-up Study of Graduates of Occupational Education Courses in Home Economics in Puerto Rico, 1970–71, 1971–72.	[1] RCU	1972–73.
6. Study of the Effectiveness of a Televised Course on Automobile Electromechanics.	[1] RCU	1972–73.
7. Curriculum Development Basic to the Training of Individuals for Employment in Agri-Business.	11,724.00	1972–73.
8. Proposal for the Development of Guides and Tests for Self-Study in Business Education for Youths and Adults.	10,597.96	1972–73.
9. Adaptation of the Industrial Arts Curriculum through the Implementation of the Course "The World of Construction" in Twelve Rural Junior High Schools.	6,763.15	1972–73.
10. Curriculum Development for a Course in Pharmacist Aid for the Health Occupations Program.	2,080.00	1972–73.

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[1] This project was carried out with the research coordinating unit (RCU) budget assigned for administrative purposes and for the development of projects within the unit.

STATE ADVISORY COUNCIL

The State Advisory Council of the Commonwealth of Puerto Rico was organized in 1969. Since its organziation, the Advisory Council has been involved in the annual evaluation reports of the vocational education programs and in matters concerning the overall implementation of the annual plans for vocational and technical education.

In addition, the Advisory Council has supported and financed three studies concerning areas of interest to vocational education, such as:

1971, effectiveness with which people and their needs are served—evaluation report.

1972, A plan for comprehensive community college education in Puerto Rico.

1973, cooperative approach for the training of vocational industries teachers.

The commonwealth vocational and technical education program has always incorporated into the annual plans the Advisory Council recommendations. The overall planning is carried out in close coordination with the Advisory Council.

SUMMARY AND RECOMMENDATIONS

Undoubtedly, Federal funds made available to the Commonwealth of Puerto Rico have given a tremendous thrust to all VTE programs. It has been possible to utilize funds for research, curriculum development, exemplary programs and professional development; these would have been impossible otherwise. These ancillary services have resulted in the improvement of the quality of occupational education. State funds alone, would only suffice for essential services and activities, thus making it difficult to achieve significant progress in VTE programs.

It is the position of the VTE program that all efforts be made to continue Federal support to vocational and technical education in Puerto Rico. More funds are urgently needed for programs in highly skilled occupations and technical education. It is also difficult to continue support for secondary courses without Federal funds. Programs designed for groups with special needs will be greatly hindered without such funds. Finally, a vigorous VTE program requires that it be accompanied with schools' construction and maintenance. The chances for such a program without Federal support will be greatly diminished.

VIRGIN ISLANDS

State Director—Wilburn Smith, Jr.

INTRODUCTION

This report to the Congress of the United States will provide information relative to the growth of vocational education in the U.S. Virgin Islands over the past 10 years, and its effect or impact made on the people and/or territory as a whole. It will be noted throughout this report that vocational education, per se, has been impacting specifically on the inschool youth. Programs designed for the adult population of the territory are handled through other sources not specifically applicable to this report.

As a matter of record, vocational education programs have been an integral part of the comprehensive high school concept in the territory since 1951 when authority was granted by the 81st Congress of the United States, through the passage of Public Law 462, which extended the benefits of the George-Barden Act of 1946. The territory was also included in legislation that created the Vocational Education Act of 1963, as amended in 1968, to participate in all provisions of said acts.

It cannot be refuted that vocational education has made tremendous strides in the territory over the last 10-year period. The accomplishments to date have been made primarily through self-determination on the territorial level. We are forging ahead by providing new and progressive programs for our youth; we have increased the instructional personnel by a sizeable margin; we are providing staff development programs for both instructional and supervisory personnel; we have constructed new facilities to house new programs and so forth. These are indications that vocational education in the territory is rapidly progressing.

The following enrollment figures are indicative of the efforts being made in vocational education in the territory:

Enrollment statistics

	Enrollees
1963	1,016
1968	1,682
1972	2,957
1977 (projected)	4,140

PUBLIC LAW 90-576 "PART B—STATE VOCATIONAL EDUCATION PROGRAMS"

a. Job Training Enrollments

Training area	1963	1968	1972	1977 (projected)	Type school
1. Automotives trades	70	85	112	225	High school.
2. Agri/hort	106	150	78	125	Do.
3. Building construction	30	40	52	150	Do.
4. Business and office		375	508	1,250	Do.
5. Cosmetology		24	54	100	Do.
6. Vocational electricity	61	75	82	200	Do.
7. Electronics		40	70	175	Do.
8. Home economics			75	250	Do.
9. Hotel and Restaurant training	25	30	20	100	Do.
10. Health occupations	9	30	45	100	Do.
11. Masonry and tile setting	20	30	20	125	Do.
12. Plumbing and pipefitting	46	60	72	225	Do.
13. Industrial technology			7	50	Do.

Note.—Home economics gainful employment programs were not implemented until 1972. Enrollment figures are not reflected in job training category above for fiscal year 1963 and 1968 respectively.

b. General Description

Job oriented programs, as previously mentioned, have been an integral part of the educational system in the territory for many years. The programs listed above are closely related to the labor market needs established in the territory. Incidentally, these programs are operative in the secondary high schools in the territory specifically geared to serving the inschool youth. The adult and school dropout are being served in other training programs such as Manpower Development and Training, Jobs-70, and OJT programs that are designed to meet their needs.

Over the past 10 years, vocational education programs have expanded significantly. As an example, there were only eight programs in 1963. By 1968 three additional programs were developed and implemented as new occupational fields were introduced to the territory. By 1972, when needs began to arise relative to heavy industry in the territory, cooperative training efforts were developed and implemented between heavy industry and education. Students are now being trained to eventually enter the labor force as millwrights, pipefitters, and maintenance mechanics. During the same period two new programs were added to the business and office education and automotive trade programs respectively.

c. Postsecondary Courses

Postsecondary programs that are vocationally oriented in nature, are of major concern to the staff of the division of vocational education at this time. It is felt that we are not making a significant impact as far as postsecondary training is concerned. There are no junior or community colleges or area vocational schools in the territory at this time that can make a contribution by providing postsecondary vocational training for the people of the Virgin Islands. However, a concerted effort is being made by the staff to work closely with officials from the College of the Virgin Islands to immediately begin planning, developing, and implementing realistic postsecondary programs at the institution.

In view of this situation, viable statistical information relative to enrollments in postsecondary programs cannot be furnished.

d. Disadvantaged Students

Enrollment statistics

1963	None
1968	None
1972	113
1977 (Projected)	400

The student enrollment figures quoted above are those students who are not involved in the regular vocational training programs in the secondary schools of the territory. Due to the limited Federal funds available to the territory ($26,000, both part B and section 102b), we are unable to make a significant impact in this area. However, every attempt is being made to provide training programs to meet the needs of those students that are categorized as "Disadvantaged" within the financial resources that are available.

e. Handicapped Students

The absence of viable information relative to "handicapped children" in the educational system who may be eligible to receive specialzied training in vocational education has resulted in our inability to provide such training. However, steps have been taken by the appropriate authorities to create a new Division of Special Education that will work very closely with the Division of Vocational Education in developing and implementing specialized training programs for those students classified as "handicapped." Programs and services, on a limited basis, were provided by the Division of Vocational Rehabilitation of the Department of Social Welfare prior to the establishment of the Division of Special Education.

In view of the situation stated above, we are unable to furnish any viable statistical information relative to enrollments in handicapped programs.

f. Adults

In an effort to avoid duplication of training programs, adult oriented programs are administered through the Office of Manpower Development and Training. Due to our relatively small population it is not feasible to conduct adult vocational education programs and manpower training programs simultaneously. In addition, the discouragingly low level of funding ($5,000) under part B of the VEA–68, does not warrant serious consideration in attempting to implement adult programs. Through our manpower funding capabilities, we have trained and/or retrained approximately 1,000 Virgin Islanders in various occupational fields.

In view of this situation, no statistical information is available relative to enrollments in adult programs under part B of VEA–68.

g. Financing

It is quite apparent that the financing procedures used in the territory are quite different to that used in State or local governments in the United States. The territory is comprised of three Islands namely—St. Thomas, St. John, and St. Croix. All three Islands come under one governmental structure which does not allow the formation of local governments independent of each other.

Likewise, the educational system in the territory is basically one educational system funded through the territorial government. There are no local independent educational agencies that generate separate taxes, and so forth.

Due to the territorial structure described above, part B funds for vocational education are received by the Territorial Department of Education and are distributed in accounts established by the Territorial Department of Finance for expenditure. No funds, in actual cash, are distributed to schools participating in vocational education programs in the territory. Programs are developed in respective schools and are approved or disapproved by the Territorial Director or Vocational Education as to whether or not expenditures can be made against specific programs under part B funds of the VEA–68.

At present, the Territorial government is providing 8 dollars to every 1 dollar provided by the Federal Government for vocational education activities in the territory. Therefore, the Territorial government's use of variable matching of local funds for Federal funds does not apply to this situation.

Item (ii) requesting a breakdown of the dollar amounts and percentages of Federal and State funds going to cities which have a population in excess of 250,000, does not apply to the territory. The last official census taken, reveals that there are approximately 62,000 inhabitants throughout the entire territory.

h. Construction and Equipment

INVESTMENTS

Fiscal years	FEDERAL	TERRITORIAL
1963	No Federal funds used.	The sum of $100,000 was spent for construction of 8 shops and laboratories at local school in St. Thomas.
1964	No Federal funds used.	No construction on major facility.
1965	No Federal funds used.	No construction on major facility.
1966	No Federal funds used.	No construction on major facility.
1967	No Federal funds used.	The sum of $450,000 was spent for construction of 8 shops and laboratories at local school in St. Croix.
1968	No Federal funds used.	No construction on major facility.
1969	No Federal funds used.	No construction on major facility.
1970	The sum of $7,531 was used for minor remodeling and renovation of facilities at the Charlotte Amalie High School.	The sum of $49,918 was used to construct two vocational education shops at local high school in St. Thomas. In addition, three shops were constructed at local high school in St. Croix. Total project was $75,000.

INVESTMENTS—Continued

FEDERAL	TERRITORIAL
Fiscal years *1971* No Federal funds used.	*1971* No construction on major facility.
1972 No Federal funds used.	*1972* No construction on major facility.
1973 No funds for construction anticipated.	*1973* No major construction anticipated.
1974 No funds for construction anticipated.	*1974* No major construction anticipated.
1975 It is estimated that $3 million in Federal funds will be needed to defray construction costs for area vocational centers.	*1975* The identical sum will be needed in local funds.
1976 No funds anticipated for construction.	*1976* No major construction anticipated.
1977 No funds anticipated for construction.	*1977* No major construction anticipated.

Major construction of vocational facilities in the territory was implemented in 1963 when four new buildings housing eight programs were erected at the Charlotte Amalie High School in St. Thomas. Subsequent to that time, 17 new vocational shops and laboratories were built in 1967 and 1970 respectively in both St. Thomas and St. Croix to meet the needs of program expansion. All laboratories and shops were constructed with local funds.

During the decade of the 1970's, it is becoming apparently clear that additional construction of vocational facilities must take place. Preliminary plans are being developed to establish two area vocational centers, one each on the Island of St. Thomas and St. Croix respectively, that will provide training opportunities for the people of the Virgin Islands. Tentative plans are to have the centers constructed and in full operation by 1976.

PUBLIC LAW 90-576—OTHER FEDERAL PROGRAMS

a. Exemplary Programs and Projects

Programs	Number of persons served 1968	1972	1977 (projected)
1. Prevocational program for disadvantaged students on Junior High Level	(1)	38	200
2. Prevocational enrichment program	(1)	65	250
3. Career development project	(1)	2,600	25,000

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[1] None.

In view of the recognizable need to develop and implement programs for those students with special problems, a proposal was developed jointly by special education and prevocational teachers at one of the local junior high schools for 38 students who were classified as educationally and socially disadvantaged. The primary objective of the project was to provide vocational experiences that would result in the development of skills, vocational choices, a renewed interest in school, and the development of wholesome attitudes about their education, work, and society as a whole. The boys and girls participating in the project were in the 13 to 16 years age range. Year end program reports indicated that the so-called disadvantaged students felt that their educational experiences, through participation in the project, appeared to them to be in keeping with the realities of life.

Another significant innovative project was developed for a group of 65 overaged boys that were enrolled in nongraded classes in one local elementary school. Serious disciplinary problems were being encountered, and the boys were identified as potential school dropouts. In view of this situation, a prevocational enrichment experience program was developed and implemented. The program had one broad objective to provide occupational orientation at the elementary level so as to increase the students' awareness relative to options available to them in the world of work. The program provided an incentive to learn for the students involved who were terribly frustrated with their school environment. After several months of involvement in the program, it became quite evident that the disciplinary problems had diminished and all the participants became interested in their school activities once again.

The career education concept is now being administered on a pilot project basis in five St. Thomas schools. Three elementary; one junior high school; and one senior high school are involved in the project. Approximately 60 teachers and 10 guidance counselors are involved in carrying out the objectives of the project. This concept to education is proving to be beneficial to the children of the Virgin Islands because of its relevance to way of life and the world of work.

b. Residential Vocational Education

As previously indicated, we are seriously considering establishing two area vocational centers in the territory. However, these facilities will not be built to encompass the residential concept. The costs involved to construct and maintain residential centers for vocational education in the territory would be so prohibitive, it is considered to be impractical. In addition, it is our candid opinion that the student population is not sufficient at this time to warrant construction of residential centers. In view of the reasons cited above, we have to forego any consideration relative to Federal funding for such a purpose.

c. Consumer Homemaking and Occupational Home Economics

ENROLLMENTS

		1967-68 (fiscal year 1968)		1971-72 (fiscal year 1972)					
	1962-63 (fiscal year 1963) vocational home economics	Home economics useful employment (homemaking)	Home economics gainful employment	Part F—Consumer homemaking			Part B—Occupational home economics		
				Total	Disadvantaged	Handicapped	Total	Disadvantaged	Handicapped
Secondary	506	655	(1)	1,973	(2)	(2)	75	75	(1)
Adult	10	15	(1)		(2)	(2)			
Total	516	670		1,973			75	75	(1)

[1] None.

[2] The total represents regular secondary enrollment.

Programs emphasizing consumer education and the family life in economically depressed areas have had very little impact. At this time insufficient funding has caused us to curtail activities in the depressed areas of the territory. The sum of $3,400 is all the territory receives as the mandated set-aside for programs in consumer and homemaking.

d. Cooperative Vocational Education

Cooperative vocational education in the territory is a new approach being undertaken for the first time. Prior to 1972 there were no viable cooperative programs.

After considerable planning, a cooperative program in industrial technology was developed between the Martin Marietta Corp. and the St. Croix Central High School. Seven students were accepted to participate in the program after they were intensively tested and screened by the above stated corporation after they demonstrated that they had the aptitiude and ability to succeed in an industrial program designed to meet the needs of heavy industry. The students are receiving training at the Martin Marietta plant under the supervision of an expert teacher. In addition to their plant training, the student receive related instruction at their high school. Upon satisfactory completion of their 2-year cooperative program, they willl return to the Martin Marietta plant as apprentices in such occupations as millwrights, pipefitters, and maintenance mechanics. It is projected that by 1977, approximately 100 students will be participating in various cooperative programs in the territory.

e. Work Study Programs

Students served:

1963	None
1968	6
1972	7
1977 (Projected)	25

The work study program in the territory has not been able to serve a large number of vocational students or potential vocational students because of the inadequacy of Federal funds. The territory receives approximately $2,500 annually for work-study programs. However, in order to receive maximum benefit from the funds received, the small number of students indicated in the tables above, were hired during the summer at wages not to exceed $350 to assist in the maintenance of school facilities.

f. Research and Training

Part C funds earmarked for research and training in vocational education in the territory have not been forthcoming in any large quantities that would make any significant impact upon research. In fiscal year 1970, the territory received approximately $15,000, and subsequently has been reduced to $3,055. These sums are hardly substantial to create a viable research coordinating unit that would conduct research activities relative to vocational education in the territory. Nevertheless, a mini research project was conducted in 1971 by a locally based organization that brought out pertinent information indicating the following:

1. There was a need to create proper linkages between education and industry in the territory to develop vocational education to its fullest potential.

2. Parental attitudes that were negative towards vocational education were affecting full student participation, especially on the Island of St. Croix.

These findings have inspired vocational educators in the territory to develop and implement new strategies that would improve upon the impact of vocational education in the territory. We are seeing positive results because business and industry are working cooperatively with education officials in developing a viable vocational education system, and parents are encouraging their children to enroll in vocational education programs. This is quite evident in the 1972 enrollment figures. Also noticeable is the number of businesses and students participating in the work experience programs.

STATE ADVISORY COUNCIL

The Territorial Advisory Council since its creation in 1969, has been very cooperative in assisting the Territorial Board for Vocational Education and the professional staff in developing and creating new programs in our institutions for students and teachers alike. The council saw the profound need to expand the business and office education programs in the schools and also insisted upon the upgrading of the personnel in all disciplines of vocational education. Based upon their recommendations, the following actions were taken:

1. The business and office education component was expanded to include a general clerical program and a bookkeeping and accounting program.
2. Proposals relative to staff development were submitted to the U.S. Office of Education. The proposals were funded and we are operating staff development programs for the instructional and supervisory staffs for the third consecutive year.

SUMMARY AND RECOMMENDATIONS

Although the Vocational Education Act of 1963, and the Vocational Education Amendments of 1968 were considered to be progressive pieces of legislation that were people oriented, they have not made any significant impact in the territory. Although the territory is appreciative of the Federal funds made available to vocational education, it is felt that the above-mentioned pieces of legislation do not address themselves to the needs of the territory. It is conceived that the legislative intent of the acts is attuned to problems in large metropolitan cities in the United States. Problems encountered in large metropolitan cities, in most instances, are completely divorced from problems in the territory.

As it now stands, Federal funds allotted to the territory have to be spent in conformity with the mandates established by the Vocational Education Act of 1963 and the Vocational Amendments of 1968. In most instances we do not have the physical, human, and financial resources which are needed to comply with those mandates established.

In addition to the above, legislative history will prove that the Federal funds allotted to the territory have been allotted based upon the size of the population. Our small population has resulted in small sums of funds distributed to the territory which in effect proved meaningless to attempt to implement programs that will make some significant impact through the deliverance of programs and services for the people.

In view of the above statements, the staff of the division of vocational education is presenting for your consideration the following recommendations:

1. That the territory be allowed flexibility in the administration of Federal funds relative to vocational education development in order that programs and activities may truly reflect the needs of the territory.

2. That Federal funding for the territory not be allotted on a population basis, but on a basis of demonstrated need relative to vocational education programs and services.

3. That enabling legislation, relative to the territory, be introduced amending the existing Vocational Education Amendments of 1968 to incorporate language in keeping with recommendations 1 and 2.

PART II

NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION: 1972 Annual Report

NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION,
Washington, D.C. March 23, 1973.

Hon. CASPAR WEINBERGER,
Secretary of Health, Education, and Welfare,
Washington, D.C.

DEAR MR. SECRETARY: The National Advisory Council on Vocational Education hereby transmits its 1972 annual report on its activities, findings, and recommendations with respect to vocational education in America, along with a summary of the evaluations made by each of the State advisory councils on vocational education during the past year.

The report illustrates the tremendous progress which has been made under the 1968 vocational education amendments, and directs attention to the many unmet needs which must be dealt with to satisfy the urgent national requirement for modern skill training to qualify young people and adults for the modern world of work.

Sincerely,

JAMES A. RHODES, *Chairman.*

ANNUAL REPORT OF THE NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION, 1972

Unmet Needs and Unresolved Issues in Vocational Education

PREFACE

The National and State Advisory Councils on Vocational Education are required by law to make independent evaluations of secondary and post-secondary vocational education programs, under the Vocational Education Amendments of 1968 and the Education Amendments of 1972.

While the occupational education programs authorized under the Education Amendments of 1972, Part B, Title – of the Higher Education Act have not yet been funded, the progress made in vocational education throughout the Nation under the impetus of the 1968 Vocational Education Amendments has been substantial. The 1968 Amendments have been responsible for bringing vocational education programs out of the "cellar," where they had habitually dwelled in most states. This has happened despite the fact that these programs have never been funded anywhere near the levels authorized in the Act. It might also be pointed out that the State Advisory Councils on Vocational Education, which share a large part of the responsibility for improvement in vocational education, have not been funded at even the minimal level required by the law.

The 1968 Vcational Education Amendments have spurred great improvements and expansion of vocational education at the state and local levels, and the potential for further growth under the continued influence of the Act is vast. With strong leadership and adequate funding, the National need for quality vocational education can be met, and the aspirations and potentials of millions of youngsters and adults can be realized. The National and State Advisory

Councils on Vocational Education endorse the concept that every youngster should, upon leaving high school, be prepared either to go on to higher education, or have the necessary skills for entry into the world of work. This concept cannot be realized without further strengthening of vocational education programs in every state. It is for the realization of that concept that the members of the National and State Advisory Councils on Vocational Education have dedicated their valuable time and energy. This report outlines the activities of the National Advisory Council on Vocational Education toward that goal, and summarizes the past year's evaluation reports of the State Advisory Councils.

The National Advisory Council on Vocational Education was impressed with the breadth of concerns, as well as the objectivity with which the State Councils evaluated the vocational-technical education programs in their states and identified unmet needs and unresolved issues. Sympathetic to the problems of vocational educators, but concerned primarily with the needs and problems of the citizens of their states, the Advisory Councils in the States have demonstrated that a new dimension and a new force have been added to the vocational education system in our nation. For they have not been satisfied solely to make recommendations for improvement and change; they also have offered assistance to their State Boards and State Departments of Education in helping achieve change. Moreover, the State Councils have persisted year after year in making certain that the state education officials have taken positive action on their recommendations.

This report serves as evidence that the National Advisory Council on Vocational Education, together with the State Advisory Councils on Vocational Education are indeed fulfilling their legislative mandates. They have returned ten-fold the Federal Government's investment in them in terms of their consultative services to State Boards of Education, the United States Office of Education, and other State and Federal agencies concerned with the development of our nation's human resources. Furthermore, with over one thousand citizens devoting volunteer time as members of the National and State Advisory Councils in the service of public education, they are in the vanguard of those forces in our national which are determined to keep public education responsive to the needs of the public.

PART I

The National Advisory Council on Vocational Education was created by Congress in the Vocational Education Amendments of 1968. (P.2.90–576). Congress extended the life of the Council, and expanded its duties and responsibilities in the Education Amendments of 1972. (P.L. 92–318). (Part B of Title X of the Higher Education Act).

Under these statutes, the Council is required to:

(*a*) Advise the Commissioner of Education concerning the administration of, preparation of general regulations for, and operation of, programs supported under those titles;

(*b*) Review the administration and operation of programs under those titles, including the effectiveness of the programs in meeting the purposes for which they were established, make recommendations and annual reports of its findings and recommendations (including recommendations for changes in the provisions of the title) to the Secretary of Health, Education and Welfare for transmittal to Congress.

(*c*) Conduct independent evaluations of programs carried out under these titles and publish and distribute the results thereof.

(*d*) Review the possible duplication of vocational education programs at the post-secondary and adult levels, and make annual reports on the extent of such duplication, together with its findings and recommendations, to the Secretary of Health, Education and Welfare.

The Council consists of twenty-one members, appointed by the President for terms of three years:

Council membership and affiliation

James A. Rhodes, Chairman, Rhodes & Associates, Columbus, Ohio.

Lowell A. Burkett, Vice Chairman, Director, American Vocational Association, Washington, D.C.

Martha G. Bachman, Chairman, State Advisory Council on Vocational Education, Delaware.

John H. Bustamante, John Bustamante & Co., L.P.A. Cleveland, Ohio.[1]

Frank Cannizzaro, International Brotherhood of Teamsters, New York, N.Y.

George B. Cook, Chairman, Bankers Life Insurance Company of Nebraska, Lincoln, Nebraska.[1]

Holly H. Coors, Golden, Colorado.

Jo Ann E. Cullen, Student, Bristol, Pennsylvania.

Marvin J. Feldman, President, Fashion Institute of Technology, New York, N.Y.

William Gellman, Director, Jewish Vocational Services, Chicago, Illinois.

Salvatore B. Hoffman, President, Upholsterers' Union of North America, Philadelphia, Pa.

Caroline E. Hughes, Cushing, Oklahoma.

Arthur M. Lee, Director of Research and Grants, Northern Arizona University, Flagstaff, Arizona.[1]

Duane R. Lund, Superintendent of Schools, Staples, Minnesota.

Donald N. McDowell, Director, National Future Farmers of America Foundation Sponsoring Committee, Madison, Wisconsin.[2]

Luis M. Morton, Jr., President, Central Texas College Killeen, Texas.

Thomas W. Pauken, Student, Southern Methodist University Law School, Dallas, Texas.[2]

John W. Thiele, Director of Industrial and Community Relations, Whirlpool Corp., Fort Smith, Arkansas.[1]

Delfino Valdez, Supporting Services Director, Albuquerque Technical Vocational Institute, Albuquerque, N. Mexico.

David Van Alstyne, Jr., Senior Partner, Van Alstyne, Noel & Company, New York, N.Y.

Vacancy.

The new appointments filled vacancies created when the terms of the following members expired at the end of 1972:

Council member and affiliation

Lawrence A. Davenport, Chairman 1971-73, Vice President for Development, Tuskegee Institute, Tuskegee, Alabama.

Jerry S. Dobrovolny, Chairman, Department of Engineering, University of Illinois, Urbana, Illinois.

Jack Hatcher, President, Varco-Pruden, Inc., Pine Bluff, Arkansas.

Norman R. Stanger, Director, Center for Career Studies, California State College, Long Beach, California.

Steve W. Stocks, Principal, Channel Island High School, Oxnard, California.

Council Meetings, 1972

February 26-28, San Diego, California.

April 14-15, Washington, D.C.

May 4-5, Denver, Colorado (Joint Meeting with State Advisory Councils).

June 30-July 1, Washington, D.C.

August 18-19, Washington, D.C.

September 29-30, Washington, D.C.

November 17-18, Washington, D.C. (Joint Meeting with State Advisory Councils).

1973

January 12-13, New Orleans, Louisiana.

February 25-28, Austin, Texas.

In addition to attending meetings, Council members participate in Council sub-committee meetings, conferences, and task forces, and represent the Council at meetings of organizations such as the National Association of Manufacturers, the United States Chamber of Commerce, local Jay Cees, and others concerned with vocational education. Last year Council members devoted an average of one day a week to Council business.

State Advisory Councils

Each State and Territory has an Advisory Council on Vocational Education, pursuant to the provisions of the Vocational Education Amendments of 1968 and the Education Amendments of 1972. The National Advisory Council works in close cooperation with the State Councils, and assists them on a continuing basis in the evaluation process. The State Councils, in accordance with the enabling legislation, forward their annual evaluation reports and recommendations through the National Advisory Council which, in turn, transmits them to Congress. The National Advisory Council meets twice a year in joint meetings with the State Advisory Councils, as indicated by the dates listed above.

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[1] Appointed to Council February 1973.

[2] Reappointed to Council February 1973.

NOTE—James A. Rhodes, who was Vice Chairman in 1972, was designated Chairman by President Nixon in February 1973.

Resource Book

A major project of the National Advisory Council during 1972 was the preparation of a Resource Book for State Advisory Councils. The Resource Book outlines the responsibilities and mission of the Councils, the scope of their formal and informal relationships with State agencies and local community groups, their relationship with Federal agencies, and guidelines for improvement of the evaluation function and for assistance in the development of State plans. Representative Albert Quie (Republican—Minnesota), ranking Minority Member of the House Education and Labor Committee, in his dedication to the Resource Book, commented on the importance of Advisory Councils in the development of occupational education, stating he was "pleased with the direction the Councils have taken and the growing sophistication with which they are discharging their responsibilities. We believe that the National and State Advisory Councils on Vocational Education may become the precedents for legislatively mandated citizen organizations to be utilized in evaluating other Federally funded public service delivery systems."

National Advisory Council on Vocational Education Reports

Since its inception, the National Advisory Council has issued a series of concise, hard-hitting reports dealing with the needs of vocational education and manpower training in America. The reports have received extensive distribution and have been widely quoted throughout the country. There was unprecedented demand for the reports issued during 1972, and several reprints of each have been necessary to fill the requests. These were the "Special Report on Employment Problems of the Vietnam Veteran", the "Sixth Report on Guidance and Counseling", and the "Seventh Report on Vocational Youth Organizations". Fifty thousand copies of the Sixth Report and 35,000 copies of the Seventh Report have been printed.

Following is a brief summary of these Reports:

First Report.—Directed its comments and recommendations to the need for change in national attitudes toward vocational education.

Second Report.—Recommended that the Federal Government make necessary policy changes in its approaches to funding, in the organization and role of the Office of Education, and in present and proposed manpower policies and legislation.

Third Report.—Challenged American education to deal with the needs of the disadvantaged and minorities who do not enjoy adequate educational opportunities.

Fourth Report—Turned its attention to five unique problems of financing and planning vocational education programs.

Fifth Report.—Attacked the educational establishment for paying lip service only to career education concepts rather than implementing realistic programs.

Special Report.—Employment Problems of the Vietnam Veteran, urged new efforts to meet the training and employment needs of returning Veterans.

Sixth Report.—"Counseling and Guidance: A Call for Change" recommended improvement in counseling and guidance services, including greater attention to vocational and technical education.

Seventh Report.—"Vocational Student Organizations", urged wider support for student vocational associations.

The proceedings of joint meetings with the State Advisory Councils on Vocational Education were:

Cooperative Day of Planning I (No longer in print.)
Cooperative Day of Planning II (May 1–2, 1970—Washington, D.C.)
Cooperative Day of Planning III (November 6–7, 1970—Washington, D.C.)
Cooperative Day of Planning IV (April 17–18, 1971—San Antonio, Texas)
Cooperative Day of Planning V (November 12–13, 1971—Washington, D.C.)
Cooperative Day of Planning VI (May 5–6, 1972—Denver, Colorado)
Cooperative Day of Planning VII (November 17–18, 1972, Washington, D.C.)

The complete texts of the first five NACVE reports were published by the House Education and Labor Committee in its volume, "Reports on the Implementation of the Vocational Education Amendments of 1968", November, 1971.

See Appendix A for the texts of the Special Report, Sixth Report, and Seventh Report.

Many of the recommendations of the National Advisory Council on Vocational Education were repeated and emphasized by the Comptroller General of the United States, in his Report to the Congress: *Training America's Labor Force: Potential, Progress, and Problems of Vocational Education*, dated October 18, 1972. An outline of GAO and NACVE recommendations appears in Appendix B, "General Accounting Office Report on Vocational Education Compared with NACVE Recommendations." The text of the Comptroller General's Report will be found in Appendix C.

Project Baseline

The National Advisory Council on Vocational Education acts as monitor for Project Baseline, which is being carried out under contract by Northern Arizona University. The Project is a four-year study of the programs, students, costs and results of all publicly-supported vocational education and manpower training programs in the United States. A baseline of data and information is being established from which the effects of Federal, as well as State and local funds, policies, and administrative actions may be observed and reported. The project was begun at the request of Congress, which felt the need for a more complete picture of what is happening in vocational education throughout the Nation. The Senate Appropriations Committee then directed that ". . . funds be used to support a national study of vocational education, to be conducted by the National Advisory Council on Vocational Education."

A center for the collection of data sorts and catalogues the extensive materials gathered by field research teams. A national network of communications has been established with key agency personnel in all States and Territories, and it is through these contacts that extensive checking and rechecking of data is being carried on by the data center staff.

On the basis of the first year report, indications are that very substantial changes have taken place in the vocational education courses offered since enactment of the Vocational Education Act. Many new courses in the areas of health occupations, technical and distributive education are being offered. A great many more high school students are enrolled in courses related to careers and employment than is generally believed, although these courses are not all identified as vocational education. The number of exemplary and innovative programs in vocational education established since 1968 appears to be far greater than information previously available would indicate.

NPA Study

Pursuant to its legislative mandate to study duplication of vocational education programs, the National Advisory Council on Vocational Education sponsored a study by the National Planning Association of duplication in twenty selected cities. The study, which was presented to Congress in 1972, found little duplication of occupational training between public institutions and Department of Labor programs, and concluded that special facilities funded by Department of Labor but operated by public education systems provide opportunities for occupational training for populations which otherwise might not be served by existing public institutions. It found that there were substantial gaps in training opportunities for out-of-school youth, and that a marked expansion of training was needed to reach that target group.

Public Information Project

The National Advisory Council on Vocational Education conducts a public information pilot project, in cooperation with State Advisory Councils and other State agencies, to assist the states in developing a public information system to improve the image of vocational education, and to inform the public of the range of vocational training opportunities available in each State. Television films and brochures are produced with technical assistance provided by the Council and the production costs provided through local funding sources. The films are generally narrated by the State Governor or other local personality. In many areas, films directed specifically at the returning Vietnam Veteran have been produced, which urge the Veterans to take advantage of vocational education.

The following States and cities have participated in the project:

State/city	Information media	Funding source
Maine	Returning veterans film (Governor Curtis)	New England Resource Center for Occupational Education (NERCOE).
Vermont	6 TV. 6 radio spots and brochure	Vermont SACVE, NERCOE, Vermont business and industry.
Rhode Island	6 TV, 6 radio spots and brochure; Returning veterans film planned April 1973.	Rhode Island SACVE, NERCOE.
New Hampshire	9 TV spots	New Hampshire Department of Education, NERCOE.
Connecticut	Returning veterans films with Governor Meskill, and brochure.	Connecticut Department of Labor, NERCOE.
Massachusetts	Returning veterans films and brochure	Massachusetts Department of Education, NERCOE.
New Jersey	Returning veterans films with Governor Cahill, and brochure.	New Jersey Department of Education, New Jersey SACVE.
Delaware	Returning veterans films with Governor Peterson, and DECA film.	Delaware Technical and Community College, Delaware Department of Labor, 70,001 program.
Tennessee	6 TV, 6 radio spots, returning veterans films with Governor Dunn, and brochure.	Tennessee SACVE.
Florida	6 TV, 6 radio spots, and prepublic opinion survey, returning veterans film with Governor Askew.	Florida Department of Education, Florida Automobile Dealers Association, Florida Bankers Association.
Michigan	8 TV, 4 radio spots, returning veterans films with Governor Millikin.	Michigan SACVE.
Illinois	2 TV spots, returning veterans films with Governor Ogilvie.	Illinois SACVE.
Indiana	6 TV, 8 radio spots, brochures, prepublic opinion survey.	Indiana SACVE.
Iowa	9 TV, 9 radio spots	Iowa Department of Education, Iowa SACVE, Iowa Vocational Association.
Colorado	Returning veterans films with Governor Love.	Colorado SACVE.
Montana	6 TV, 6 radio spots, brochure	Montana Department of Education.
Oregon	4 TV spots, returning veterans films with Governor McCall.	Oregon Department of Education, Oregon Restaurant Association.
Atlanta	6 TV spots	Atlanta Public Schools.
Cleveland	3 TV spots	Jennings Foundation.
Houston	6 TV, 6 radio spots, brochure	Houston Chamber of Commerce.
DECA	1 TV film	Distributive Education Clubs of America.
Planned for spring-summer 1973		
Minnesota	6 TV, 3 radio spots, returning veterans films with Governor Anderson.	General Mills.
Mississippi	6 TV, 3 radio spots, returning veterans films with Governor Waller.	Mississippi SACVE.

School-to-Work Project

This Project was begun at the request of the United States Office of Economic Opportunity, in cooperation with the United States Office of Education, to study the feasibility of including job placement services as part of the regular high school operation. The Council plans to provide technical assistance to twenty school systems which express an interest in providing better occupational guidance for their non-college-bound students. The National Urban League and the National Alliance of Businessmen are cooperating in the Project at the request of NACVE. The study will enable the NACVE to advise the United States Office of Education on this concept. The Education Amendments of 1972 give to the Commissioner of Education the responsibility for exploring the possibility of making every high school an employment agency. The School-to-Work Project is the outgrowth of a recently completed two-year Office of Economic Opportunity demonstration project which dealt with the employment problems of inner-city school youth. It was based on the program begun by the City of Cleveland, which OEO tested in Atlanta, Minneapolis, Pittsburgh, and Washington, D.C.

Minority Conference

In the latter part of 1972, in response to questions raised by minority group members, the Council agreed to help plan and host a minorities conference on career education, which was later given the title "Career Education: Implications for Minorities" and was held in Washington, D.C. at the Sheraton-Park Hotel, February 1-3, 1973. Joining NACVE as sponsors were the Council of Chief State School Officers, State Higher Education Executive Officers, and the United States Office of Education. Over 450 persons, representing minority groups throughout the Nation, attended the three-day conference. Speakers included Dr. Sidney Marland, Congresswoman Shirley Chisholm, Dr. Thomas Glennas, Dr. John Ottina, Dr. William Pierce, Congressman Augustus Hawkins, Congressman William Steiger, Mr. Arthur Fletcher, and Mrs. Anna Chennault. The purpose of the conference was to give minority group representatives the opportunity to explore the career education concept, and to question Government and educational leaders on the subject. A report of the findings and recommendation of the conference will be published in the Spring of 1973.

Manpower Data for Vocational Education Planning

The National Advisory Council on Vocational Education, concerned with improving vocational education planning, early in 1972 initiated an effort to improve the coordination among the various Federal agencies with specific or potential roles in the implementation of this cooperative effort. These agencies include the Bureau of Labor Statistics, and Manpower Administration of the Department of Labor, the Bureau of the Census of the Department of Commerce, and the Office of Education of the Department of Health, Education, and Welfare. Under the sponsorship of the National Advisory Council, a series of meetings was held involving representatives of these agencies who explored means of improving their coordination in matters relating to vocational education planning.

Continuing Cooperation with the United States Office of Education

The Council maintains continuous liaison with the Office of Education, and with the new National Institute for Education. The Council receives a report on OE activity by the Commissioner or his representative at each of its meetings. NACVE worked closely with OE in developing the new requirements for state plan evaluation, which became effective in February, 1972. The Council participated in the selection of the career education model sites, and was represented at the various regional conferences on career education sponsored by the United States Office of Education last year.

Relationships with Other Departments and Agencies

Many vocational education and manpower training programs are administered by Departments other than HEW. In order to carry out its mandate to study duplication of effort in these fields, the Council has developed working relationships with the Department of Labor, the Department of Defense, the Department of Agriculture, the Department of Commerce, the Department of the Interior, and the Office of Economic Opportunity. The Council assisted in the development of the Air Force Community College, and in efforts to achieve greater comparability between military training programs and civilian career opportunities. The Council created an Ad Hoc Committee on Indian Vocational Education in 1972, which has been working closely with the Bureau of Indian Affairs and other groups. A report will be published when the work of the Committee is completed.

Relationships with Other Organizations

The National Advisory Council on Vocational Education also maintains contact with other organizations concerned with improving vocational education, such as educational associations, Chambers of Commerce, labor unions, student organizations, civil rights groups, and research organizations. Late in 1972, the Council sponsored a series of seminars to discuss the theory of Dr. Herbert Striner on the retraining of individuals receiving unemployment insurance compensation. The seminars were attended by economists, labor union representatives, Members Congress, educators, and business representatives.

NACVE and Congress

The Council is often called upon by Congressional committees and individual Members of Congress to testify on and assist in developing legislation concerning vocational education and manpower training programs. In 1972, the Council testified before the House and Senate Appropriations Subcommittees on Labor-HEW for full funding of vocational education programs. It pointed out that the Vocational Education Act was one of the most successful Federal education programs, and that Federal leadership in the field of vocational education was responsible for generating an average of five dollars in State and local funds for every one dollar spent by the Federal Government. The Bill passed by Congress, which was subsequently vetoed, contained increases in all vocational education programs, as well as full funding for State Advisory Councils.

Expanding Educational Options

In all its activities, the National Advisory Council on Vocational Education is concerned, as are the State Advisory Councils, with improving the image and quality of vocational education, and broadening the educational options of our Nation's youth. The Council has encouraged the development of the career education concept, for it feels that career education has excited the imagination of the public and educators alike.

In its meetings, reports, and other public forums, the Council has stressed the importance and the need for an educational system which is relevant to the 80% of students who do not complete an academic degree at an institution of higher education. This vast majority presently receives little or no education or training which will help them develop the skills and attitudes they will need in making the transition to the world of work.

The Council has been careful to point out that career education and vocational education are not synonymous. The skill component, which has always been called vocational education, is a major part of the career education concept. We do not believe that, as the concept of career education grows, the need or support for vocational education can in any way diminish. The necessary skill component of career education cannot be placed in its proper perspective and given the correct weight in the emerging career education framework if vocational education is not a strong partner in this endeavor. The current level of funding in the budget for vocational education is not sufficient to provide the staff and leadership needed, at both the Federal level and in the field, for vocational education to make the kind of contribution which must be made if career education is to succeed.

As career education gains greater currency throughout the country, and as career education models begin operation, more and more youngsters will become aware of the alternatives and opportunities available to them. They are going to want to take advantage of vocational and technical education programs. But we will not be able to begin to accommodate these students if vocational education programs and funds are not adequate. With full funding of the programs authorized by Congress in the Vocational Education Amendments of 1968, we could make many of the advantages of the career education concept available to a greater number of students immediately.

Vocational education is one of the major cornerstones of career education. Without adequate funding, however, it could become one of the weak links which would threaten the entire structure.

APPENDIX A

6TH REPORT, NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION, "COUNSELING AND GUIDANCE: A CALL FOR CHANGE," JUNE 1, 1972

VOCATIONAL EDUCATION AMENDMENTS OF 1968, PUBLIC LAW 90-576

The National Advisory Council on Vocational Education was created by the Congress through the Vocational Education Amendments of 1968. It is composed of 21 persons, appointed by the President from diverse backgrounds in labor, maangement and education. It is charged by law to advise the Commissioner of Education concerning the operation of vocational education programs, make recommendations concerning such programs, and make annual reports to the Secretary of Health, Education, and Welfare for transmittal to Congress.

NATIONAL ADVISORY COUNCIL
ON VOCATIONAL EDUCATION,
Washington, D.C., June 1, 1972.

Hon. ELLIOT RICHARDSON,
Secretary, Department of Health, Education, and Welfare,
Washington, D.C.

DEAR MR. SECRETARY: The National Advisory Council on Vocational Education is pleased to submit as its Sixth Report recommendations for improvement of counseling and guidance services.

The Council has discovered that the general quality of counseling and guidance services today is greatly in need of improvement. The counseling and guidance profession is not keeping up with the latest developments in our educational system.

Little attention is given by counselors to vocational and technical education, and the expanding variety of new career opportunities which do not require a four-year college degree.

Counseling and guidance is a useful tool for providing young people with the information and advice they need to make intelligent career choices in today's modern society. If the information offered is restrictive and out-of-date, however, the guidance role could do more harm than good. We are interested in seeing the necessary improvements made in counseling and guidance to make it a truly beneficial and constructive part of our educational and social service system.

We share the concerns of 46 of the State Advisry Councils on Vocational Education which have also studied and reported on the need for improving counseling and guidance services.

This report is the result f numerous hearings and meetings conducted during the course of the past year by the Council's Committee on Counseling and Guidance, headed by Delfino Valdez. The Council appreciates the cooperation of the many individuals and organizations representing business, industry, labor, education, and the general public, whose testimony provided the background for this report.

Sincerely,

LAWRENCE DAVENPORT, *Chairman.*

COUNSELING AND GUIDANCE A CALL FOR CHANGE

The prime legacy being left to today's youth is the certainty of uncertainty. The major thing youth knows for sure is that change is coming—and at an increasingly rapid rate. Change in the nature of occupations, in skill levels required for job entry, and changes in work values. They are being told that their prime goal must be one of adaptability—of being able and ready to change with change. We have assured them that, on the average, they may expect to change occupations somewhere between five and seven times during their working life.

Society has told youth they should want to work and should endorse the work ethic. But the work values of young people in this post-industrial society are not, and should not be, the same as their parents. Youth understands that we have now moved into an era where this Country produces more services than goods—that increasingly, machines produce products, and man provides services. But how is a young person to plan his future so as to provide the greatest possible service to his fellow man while deriving personal satisfaction for himself?

Most youth understand full well that education is a key ingredient in preparation for employment. We have passed on to youth the false societal myth that a college degree is the best and surest route to occupational success—and then cautioned them that less than 20% of all occupations existing in this decade will require a college degree. Youth has been told that many more should enter vocational education, but has never been provided with the hard facts that would give them a reasoned basis for choosing to do so.

Given this "adulterated" view of the future and its prospects, coupled with the true complexity of society, is it any wonder that:

Over 750,000 youths drop out of high school each year?

Over 850,000 drop out of college each year?

Fewer than 1 in every 4 high school students is enrolled in vocational education?

Record numbers of high school graduates are enrolling in college during the very time when unemployment among college graduates is at a ten-year high?

The ratio of youth to adult unemployment has risen each year since 1960?

Student unrest is a strong and pervasive force among both high school and college students?

Over 75% of all community college students are enrolled in the liberal arts transfer program while less than 25% ever attain a baccalaureate degree?

38% of all Vietnam Veterans are enrolled in vocational programs, while 30% are enrolled in 4-year college programs, in spite of the limited prospects of jobs for college graduates?

Youth who are unsure about the future are bound, to some extent, to be unsure about themselves. The American cry for "freedom of choice" carries a very hollow ring for those whose choices have never been made clear.

THE CURRENT STATE OF COUNSELING

Sixty-four years ago there were no counselors. Today there are more than 70,000.[1] The counselor-pupil ratio in the public schools was cut in half between 1958 and 1968. It has declined only a little since then. Professional standards have been raised across the board. There is a growing abundance of better research-based counseling tools. The number of colleges and universities training counselors has doubled in the last 15 years. Nineteen federal education and manpower programs enacted since 1960 have called for counseling and guidance services. On the surface, counseling and guidance seems to shine.

When we look beneath the surface, the status of counseling, in practice, looks shaky and shabby. The following observations summarize some concerns of the Council:

Counselors and counseling are being subjected to criticism by other educators, parents, students, and industry, and there is validity in this criticism.

Some national authorities have recommended elimination of elementary school counselors.

Numerous school boards have reassigned counselors to full-time teaching duties as "economy" measures.

The Veterans Administration has removed the "request for counseling" question from their Application for Educational Benefits form.

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[1] 47,000 are school counselors. Student-counselor ratios: Secondary school level, 475:1; Elementary school level, 3,500:1 or 6,300:1 outside Standard Metropolitan Statistical Areas (SMSA).

Adult and community counseling agencies are still nonexistent in most parts of the country.

Employment Service and vocational rehabilitation counselors are evaluated in terms of numbers of cases closed rather than quality of service provided.

Counselors are much more competent in guiding persons towards college attendance than towards vocational education.

Job placement and follow-up services are not now being routinely provided as an important part of counseling and guidance programs.

There is a need for the counselor-counselee ratio to be improved in the poverty pockets of the United States.

In almost no setting is the counselor-counselee ratio low enough to justify strict one-to-one counseling, but counselors still persist in their attempts to use this technique, rather than group counseling approaches, as their primary method of helping people solve their problems.

Most counselrs know very little about the world of work outside of education.

Counseling and guidance services are being rejected by the hard core disadvantaged as irrelevant and ineffective.

This negative picture is intolerable. A society with an increasing rate of change problems for its members, and must accept responsibility for helping individuals solve their problems.

WHO IS RESPONSIBLE?

Those who work as practitioners in any field are, and should be, held accountable for both its successes and its failures. There is no doubt that a portion of the responsibility must be placed on counselors themselves. However, there are others who must share the responsibility for providing sound counseling systems for the various publics to be served. Counselors have been more victims than villains, in this sorry scenario. Who else is responsible? The answers, we think, are many:

School administrators who assign counselors clerical and administrative chores rather than leaving them free to do their professional work.

Parents who pressure counselors to help students gain college admittance and criticize counselors who try to help students study opportunities in vocational education.

State departments of education for not making paid work experience a requirement for counselor certification.

Counselor education institutions which make only one course in occupational guidance required in the graduate programs of counselor preparation.

The United States Congress which has called for counseling and guidance in 19 laws, but in no law now on the books has provided specific funds to support it.

The business and industry community for criticizing counselors rather than mounting forward-looking programs designed to upgrade counselor knowledge regarding the world of work.

Administrators of vocational education for being unwilling to use as much as 4% of their financial resources in support of counseling and guidance services.

The many agencies of government which employ counselors, for failing to unify requirements for counselors.

Professional guidance associations which have not effectively made their voices heard among the decision-makers in our society.

Manpower experts for not collecting and disseminating accurate data to counselors regarding earnings of graduates from occupational education programs.

Organized labor for being neglectful in establishing a closer relationship with education in general and guidance in particular.

The individual counselor whose apparent concerns for those he seeks to serve have not been great enough to cause the counselor himself to cry out in protest and to struggle for improvement.

In short, there are few among us who can be said to be completely free of blame. Recognizing this, we call upon all to join together in a *total* effort to improve the quality and quantity of counseling and guidance services to all individuals—youth and adults—throughout the land.

WHAT MUST BE DONE?

We see no magical solutions, but some reforms are obvious and urgent. We urge and recommend that:

State Departments of Education require work experience outside of education for all school counselors who work with students and prospective students of vocational education.

Individuals with rich backgrounds of experience in business, industry, and labor, but with no teaching experience, be infused into the counseling system.

Counselor education institutions require at least one introductory course in Career Education and at least one practicum devoted to an on-site study of the business-industry-labor community.

Responsible decision-makers embark on an immediate major campaign designed to upgrade the vocational knowledge and career guidance skills of currently employed counselors.

Decision-makers in education make extensive provision for the training and employment of a wide variety of paraprofessional personnel to work in guidance under supervision of professionally qualified counselors.

Concerted efforts, including computerized guidance systems, be made to get more accurate, timely data to counselors regarding vocational and technical training and job opportunities.

Increased efforts be made to improve sound counseling and guidance services to members of minority populations and other disadvantaged persons.

Special efforts be made to mount and maintain effective counseling and guidance programs for handicapped persons, for adults, for correctional institution inmates, and for veterans.

Community service counseling programs be established and operated throughout the United States.

Immediate efforts be made to lower the counselor-pupil ratio in elementary, secondary, and post-secondary educational institutions to a point where all who need counseling and guidance services will, in fact, receive them, while simultaneously encouraging more guidance in groups.

Job placement and follow-up services be considered major parts of counseling and guidance programs.

Career development programs be considered a major component in Career Education, both in legislation and in operating systems.

The United States Office of Education create a Bureau of Pupil Personnel Services that includes a strong and viable Counseling and Guidance Branch.

The United States Congress create categorical funding for counseling and guidance in all legislation calling for these services.

State Departments of Education and local school boards initiate actions confirming their commitment to the importance of providing sound counseling and guidance services to all individuals.

All those who now criticize counselors be charged with responsibility for making positive suggestions for their improved performance.

Our glory, as a nation, has been the multiplication and remultiplication of choice, but it will become our shame if we fail to help our people cope with choice. Counseling and guidance is imperfect, but it is our best device. It deserves the support and backing of our entire society. It has the support and backing of this Council.

Respectfully submitted,

LAWRENCE DAVENPORT, *Chairman.*

Mrs. Louis Bachman.
Lowell A. Burkett.
Frank Cannizzaro.
Mrs. Joseph Coors.
Miss Jo Ann Cullen.
Jerry S. Dobrovolny.
Marvin J. Feldman.
William Gellman.
Jack Hatcher.
Salvatore Hoffman.
Mrs. Hugh Hughes.
Duane Lund.

Donald N. McDowell.
Luis M. Morton, Jr.
Thomas Pauken.
James Rhodes.
Norman R. Stanger.
Steve W. Stocks.
Delfino Valdez.
David Van Alstyne, Jr.

Members, National Advisory Council
Calvin Dellefield, Executive Director

SPECIAL REPORT—EMPLOYMENT PROBLEMS OF THE VIETNAM VETERAN

NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION, FEBRUARY 1, 1972

The National Advisory Council on Vocational Education was created by the Congress through the Vocational Education Amendments of 1968. It is composed of 21 persons, appointed by the President from diverse backgrounds in labor, management and education. It is charged by law to advise the Commissioner of Education concerning the operation of vocational education programs, make recommendations concerning such programs, and make annual reports to the Secretary of Health, Education, and Welfare for transmittal to Congress.

NATIONAL ADVISORY COUNCIL
ON VOCATIONAL EDUCATION,
Washington, D.C., February 1, 1972.

Hon. ELLIOT RICHARDSON,
Secretary, Department of Health, Education, and Welfare,
Washington, D.C.

DEAR MR. SECRETARY: The National Advisory Council on Vocational Education herewith submits a Special Report on the Employment Problems of the Vietnam Veteran.

The serious plight of returning veterans who cannot find decent jobs, and who consequently feel like rejects in the society which sent them to war in the first place, should severely strain our national conscience.

The unique problems facing the Vietnam veteran as he tries to re-enter civilian life during a period of high unemployment will not respond to routine programs of assistance. We should be prepared to undertake special emergency programs to cope with the problems of the returning serviceman.

The National Advisory Council on Vocational believes that the unemployment situation among veterans has reached the proportions of a national crisis, and only an all-out national effort can have an impact on it.

In this report, we focus attention on the nature of the problems of the Vietnam veterans, how they differ from those of previous generations, and the need for specific action designed to alleviate some of those problems.

The report is the result of a study undertaken by the Council's *Ad Hoc* Committee for Training Returning Servicemen, headed by Council Member Thomas Pauken, himself a Vietnam veteran. The Council also had the benefit of research assistance by Mr. Karel Baarslag, a former Naval combat officer in Vietnam.

Sincerely,

LAWRENCE DAVENPORT, *Chairman.*

EMPLOYMENT PROBLEMS OF THE VIETNAM VETERAN

Once again the veterans return from war. The situation is not novel in our history, yet somehow these veterans seem different. They do not return to triumphant parades as in the past, nor do they want them. Few will join traditional veterans' organizations. They do not fit the image of returning heroes. They hear what is said about Vietnam, but know different from their own experiences. If there is a stereotype of the Vietnam veterans, it is probably based on television news accounts of veterans with long hair and hippie clothes protesting the war, demanding an investigation of atrocities, calling for changes in the drug laws. But for every highly visible veteran, there are thousands more who simply come home. The Vietnam veteran wants to do something, but he is not sure what. After the initial period of getting reacquainted with family and friends, he usually starts looking for employment. The immediate joy of being back in the good old USA is soon replaced by bitterness and indifference as jobless weeks drag by and he finds his expectations shattered.

There are over 5 million Vietnam-era veterans. Approximately 2.5 million of these veterans served in Vietnam. Most of these are young men. For many of them, life in the military was the first time they had ever been out of school and away from home. After completing their service obligation, many of these returning veterans find the transition to civilian life a difficult one, having few skills and little training that can be readily translated into good jobs.

The National Advisory Council on Vocational Education believes that these young men are capable of great contributions to American life. The young veterans have served their country well and will serve it again in a different capacity if given a chance. They want to be part of America, and the problems they experience are the problems of trying to get back in. Failure to reach these veterans with the assistance they need hazards the risk that part of an entire generation may be lost to our society or become its enemies.

BACKGROUND

The National Advisory Council on Vocational Education is concerned about ensuring that maximum vocational opportunities be made available to Vietnam-era veterans. To accomplish this, it is first necessary to understand the conditions and problems confronting the returning veteran.

The report which follows is an attempt to analyse the special problems and needs of the Vietnam-era, and to offer some recommendations, especially in relation to training and employment.

There have been few major studies dealing with the special problems faced by Vietnam-era veterans. Government statistics show the existence of the problems, but they cannot reveal the underlying causes or suggest the remedies.

This report is based on available statistical data along with results of small group interviews with returning veterans and meetings with officials responsible for programs affecting veterans.

THE PROCESS OF READJUSTMENT

Americans assigned to Vietnam are forewarned of the "cultural shock" that awaits them there. Almost to a man, however, they are not prepared for the "reverse cultural shock" confronting them upon their return to the United States. This reverse cultural shock and its manifestations are at the root of many difficulties experienced by young veterans as they re-enter civilian life. One young Vietnam combat veteran described his return home in this way:

"Initially, I was exhilirated at being back home again. Getting out of Vietnam and the military in one live piece was like a cross between graduation and salvation. But the immediate excitement quickly wore off. Any mention of my being in combat in Vietnam brought reactions varying from coolness to hostility. I soon became restless at dealing with things that seemed to me mundane, unimportant, and boring. I put more of myself into my tour in Vietnam than any other experience in my life, living in violent extremes—days of combat and days of idleness. It was a matter of life and death. Yet at home people didn't understand or care, and treated me as though none of that made any difference."

The unpopularity of the Vietnam war places an additional burden upon the returning veteran. The young veteran finds himself referred to in print and in conversation as a dope addict or trained killer. Often his own peer group tells him what a fool he was to go to Vietnam in the first place. In his absence they have moved ahead in their life pursuits—including career development—while the veteran lacking civilian-related skills and training must start from the beginning as though his military service made no difference. He discovers that service in Vietnam acts as more of a handicap than an advantage in his search for a job.

Confronted with these difficulties in readjustment, many young veterans become increasingly isolated from society and bitterness sets in. One interviewer talked with many young Vietnam veterans and found significant differences between them and earlier generations of veterans. He stated:

"They have been ignored, first as soldiers and later as veterans. They are truly estranged and alienated from their peers who never served, and their alleged friends among the dove and hawk population.

"Time and again they revealed to me their bitterness and hopelessness at being 'used', at being lied to, at being forced to serve either because they could not get school or job deferments or because they once believed in the absoluate justice of America's claims. They feel betrayed."

Any serious attempts to meet the needs of the returning veteran must take cognizance of the indifference and bitterness so prevalent among those young veterans most in need of help.

WHERE ARE THE JOBS?

Once the returning veteran has finished celebrating his return to civilian life, he begins to look for a job. Listen to Jerry Pugh, a Vietnam tank driver, describe his difficulties in finding work:

"When I first came home, I wanted to find a job. They said, 'Well, we'll get in touch with you.' There's nothing they have; they don't have any jobs. Just like the demonstrations I've seen since I've been home. They say well, end the war, you know, stop the war in Vietnam and bring the fellas home. What can they give them when they get home? You know, a lot of people are going to be upset when they come home."

The case of Jerry Pugh is not atypical. According to the Department of Labor, the unemployment rate for Vietnam-era veterans was 8.3 percent in September 1971, considerably higher than the 6.0 percent unemployment rate for veterans in September 1970. Of particular concern was the 12.4 percent unemployment rate in the second quarter of 1971 for those veterans aged 20 to 24. Altogether there are approximately 320,000 known unemployed veterans.

Moreover, there is considerable possibility that the situation may be worse than the figures would indicate. It is not certain that all veterans are being measured in the statistics on employment. For example, a person discharged from the Army who had no previous job, does not attempt to draw unemployment benefits or contact government agencies for assistance, would not show up in the official unemployment figures.

Statistics also show that veterans between 20 and 29 years old have a higher unemployment rate than nonveterans—one-fourth higher in ages 20 to 24 and one-third higher in ages 25 to 29.

Not only is a greater percentage of veterans unemployed than non-veterans, but veteran unemployment persists longer. About 24 percent of the unemployed veterans have been jobseekers for 15 weeks or more, compared with 16 percent a year ago.

Looking at data on unemployment compensation for ex-servicemen, the average duration of benefits rose from 9.7 weeks in fiscal year 1970 to 13.3 weeks in fiscal year 1971. Exhaustion of such benefits more than tripled, increasing from 22,200 cases in fiscal year 1970 to 74,600 in fiscal year 1971.

In terms of job placement, veterans face a more difficult time than non-veterans. Nearly 2.7 million veterans applied at employment service offices last year; 13 percent received placement in any sort of job, a lower rate than placement for non-veterans.

As the process of Vietnamization accelerates and most—if not all—American servicemen are brought home from Vietnam in 1972, we can expect the dimensions of the unemployment problem for the returning veteran to become even more acute. Already unmployment figures for the Vietnam-era veterans have reached a dangerously high level.

Many factors combine to account for this high unemployment rate:

1. The current economic slump has resulted in a tight job market.
2. The difficult readjustment process described above has made the young veteran a less attractive employee to potential employers.
3. Too many young veterans leave military service without the skills and training needed to compete in the civilian job market.
4. Often the young veteran completes military service without guidance necessary to assist him in assessing his aptitudes and interests and then matching them to educational and job opportunities.

5. Government programs of employment assistance have, for the most part, been on a business-as-usual basis, providing only routine assistance to job-seeking veterans.

6. An unpopular war has led our society in general to be indifferent or even hostile to the needs of the Vietnam veteran.

INADEQUACY OF EXISTING PROGRAMS

Assuming that no dramatic improvement in hiring of veterans is forthcoming in the immediate future, new or alternative government approaches are called for to meet the pressing demand for the successful re-integration of veterans into civilian society. Although a number of public and private programs designed to assist the returning veteran have made worthwhile starts in this direction, significant problems remain. Inadequacies of these efforts include:

1. *Lack of program coordination.*—Neither the White House nor any of the Federal agencies have asumed or been given primary responsibility for all the varied programs affecting Vietnam veterans. So many scattered, isolated efforts have cropped up that confusion and a false impression of great national effort have resulted.

2. *Information gap.*—While it may seem surprising, most veterans are unaware of the full extent of their G.I. Bill benefits. Thus, the veteran has no realization of the wide range of alternatives from which he might choose.

3. *Undue emphasis on higher education.*—In its counseling and public information programs, the Federal government has concentrated its attention upon the encouragement of veteran utilization of higher education benefits. The availability and attractiveness of vocational education programs has not received equal attention.

4. *Under-utilization of young veterans.*—In terms of understanding, commitment, and willingness, young veterans are the most appropriate and potentially the most significant resource for meeting the needs of their fellow returning veterans. Yet not nearly enough young veterans have been hired by Federal agencies concerned with vetrans' needs. Th so-called point system of the Civila Service System that ostensibly gives the veteran a preference in hiring is, in reality, of little benefit to the returning veteran.

THE NEED FOR ASSISTANCE

What, indeed, can we give them when they get home? We can and must give them the practical guidance and assistance they need to enable them to compete for jobs in a tight economy and we must make certain that everyone who needs assistance knows that it is available.

Congress recently held hearings on proposals which would help the Vietnam veteran in his readjuasment to civilian society. These proposals, which will be considered in the 2nd Session of the 92nd Congress, include increased education and training allowances; public service employment for Vietnam veterans; additional training to restore employability; equitable treatment of veterans in vocational courses; employment and relocation assistance; and outreach services for veterans to assist in obtaining education, training and employment.

The final details of these programs and their effectiveness, if they become law, remain to be seen. The time between now and when these measures might become operative represents lost time for hundreds of thousands of veterans. New legislation is as desirable as it is overdue but it will have no effect on the immediate problems of those currently unemployed.

We must make optimum use of existing programs and resources now. According to the Department of Labor's Special Labor Force Report 137, "Employment Situation of Vietnam Era Veterans, 1971," a few programs have recently been updated or are in the planning stage.

Job counselors from the Department of Labor's Manpower Administration, the Office of Education, and the Veterans Administration are being sent to overseas military bases to help returning servicemen plan their future employment. The programs will concentrate on those who need assistance most, such as servicemen with less than a high school education or no civilian-related job skill. Stateside, the Labor Department and the Veterans Administration are trying to reach former servicemen who are unemployed. The State Employment Security Offices give the Veterans Administration the names, addresses and phone numbers of veterans who have drawn unemployment compensation for

13 weeks or longer. The VA then attempts to contact the veteran to encourage him to use his GI benefits for schooling or on-the-job training.

The Defense Department is planning skill centers where soon-to-be discharged servicemen will receive vocational training in a marketable skill and job placement assistance. The training will be funded under the Manpower Development and Training Act. Reportedly about $5 million has been set aside to train approximately 12,000 servicemen.

These are useful programs, but hardly adequate to meet the needs. The unemployment problem among veterans has reached the proportions of a national crisis. Only an all-out national effort will have an impact on the problem.

CONCLUSIONS AND RECOMMENDATIONS

General

Our research leads us to draw a profile of the returning veteran most in need of assistance:

He is a young man between 20 and 24 years old.

He comes from a lower middle class or disadvantaged background.

He holds a high school diploma or less.

He saw military service in Vietnam.

He received little or no training in civilian-related skills while in the military.

He is unlikely to take advantage of his GI educational benefits.

He probably is unaware of the various programs of assistance available to him.

This is the veteran we should be reaching. Public and private programs should place their primary emphasis upon providing assistance to these young men, particularly in the area of vocational education and training.

Recommendations

In order to reach this veteran and provide him with the kind of assistance he needs and to which he is entitled, the National Advisory Council on Vocational Education makes the following recommendations:

1. *That the Administration establish immediately a system to coordinate all public and private programs of assistance to returning veterans.*—Either the White House or a designated Federal agency must assume ultimate responsibility for the varied programs affecting Vietnam veterans. Starts are being made in many areas, but there must be a central authority to coordinate these efforts to prevent duplication and to asure that the various aspects of the programs complement one another to provide the greatest possible benefits to the recipients. Training and education programs must dovetail with outreach programs on the one hand and placement programs on the other. Drug rehabilitation programs must not operate independently; they should be tied to guidance, counseling, and training programs. Programs for the rehabilitation of handicapped veterans should logically lead to occupational training.

2. *That a national public information program be launched to inform the returning veteran of the assistance and opportunities available.*—Too often we find the attitude that the programs are there, and if the vet doesn't want to take advantage of them, that's his fault. The Nation cannot afford that kind of smugness. The veteran must be actively recruited into civilian life with at least as much zeal on the part of the government as was used when he was recruited, or drafted, into the military. A variety of methods can be used other than the traditional government information outlets. These can include radio and television announcements, strategically placed billboards, information programs through local community organizations, contract through minority and ethnic group organizations, and other means of getting the information to the individual in his own community.

3. *That greater emphasis be placed on vocational education and job training under the GI Bill.*—Most veterans tend to think of the education benefits under the GI Bill in terms of college academic programs. In its counseling and public information programs, the Federal government has generally urged veterans to use their GI benefits for higher education. The highly-motivated and qualified college-bound individual is usually aware of the benefits available and takes advantage of them. Greater stress should be placed on counseling veterans to use their education benefits for vocational and technical programs in adult and vocational schools, universities, community colleges, and private and public vocational-technical schools. If more veterans (as well as non-

veterans just out of public school) entered vocational training courses and manpower training programs, the surplus of jobseekers would, at least temporarily, be reduced. They would be increasing their earning capacity and employability rather than seeking immediate employment, which would frequently be in poorly paid entrance jobs. When they did enter the job market, they would be in a much better position to compete for the better jobs. One way to help achieve this goal would be to expand the participation of the Bureau of Adult and Vocational Education of the U.S. Office of Education in programs relating to educational benefits for returning veterans. The National Advisory Council on Vocational Education already has a pilot program for recruiting veterans for occupational education which could readily be expanded into a national program. (See Appendix A).

4. *That greater use be made of Vietnam veterans in implementing these programs.*—No one understands the needs and aspirations of the Vietnam veteran better than one of his fellows. The government should strengthen procedures which give hiring preference to veterans, and loosen some of its unnecessarily rigid requirements so that greater use of qualified Vietnam veterans can be made in every agency which participate in veterans' assistance programs. This is especially important in those agencies which have initial contact with the returning serviceman such as the Veterans Administration. An effective outreach program must take into consideration the frustration felt by many Vietnam veterans, and recognize that friendly and sympathetic contact with someone who has shared their experiences could be the needed first step in the process of re-entry into civilian life.

Respectfully submitted.

LAWRENCE DAVENPORT, *Chairman.*

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Members, National Advisory Council
Calvin Dellefield, Executive Director

APPENDIX. A—PUBLIC INFORMATION PROJECT ON THE RETURNING VETERAN

The following information outlines the action taken by various states, in cooperation with the National Advisory Council on Vocational Education, in developing a public information program for returning veterans.

Maine: Production of a 60 second television film, introduced and narrated by Governor Kenneth Curtis. The production costs were underwritten by the New England Resource Center for Occupational Education.

Oregon: Production of a 60 second television film and a 30 second television film, introduced and narrated by Governor Tom McCall. The production costs were underwritten by the Oregon Board of Education.

New Jersey: Production of a 60 second television film and a 30 second television film, introduced and narrated by Governor William Cahill. The production costs were underwritten by the New Jersey Department of Education.

Production of a brochure on "The New Jersey Veteran". The production costs were underwritten by the New Jersey State Advisory Council on Vocational Education.

The project, called "The Governor's Career Team for the Returning Veteran," is made up of the following agencies:

1. Office of the Governor.

2. New Jersey Governor's Task Force, Jobs for Veterans.
3. New Jersey Department of Labor and Industry.
4. New Jersey Department of Education, Division of Vocational Education.
5. New Jersey Department of Higher Education, Office of Community Colleges.
6. New Jersey Advisory Council on Vocational Education.
7. Veterans Administration.
8. National Advisory Council on Vocational Education.

Florida: The Florida State Advisory Council on Vocational Education has authorized payment for production of a 60 second television film and a 30 second television film, to be introduced and narrated by Governor Rubin askew. The project will be run through the Florida Department of Education, Division of Vocational Education.

7TH REPORT, "VOCATIONAL STUDENT ORGANIZATIONS," NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION, NOVEMBER 15, 1972

> The National Advisory Council on Vocational Education was created by the Congress through the Vocational Education Amendments of 1968. It is composed of 21 persons, appointed by the President from diverse backgrounds in labor, management and education. It is charged by law to advise the Commissioner of Education concerning the operation of vocational education programs, make recommendations concerning such programs, and make annual reports to the Secretary of Health, Education, and Welfare for transmittal to Congress.

NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION,
Washington, D.C., November 15, 1972.

Hon. ELLIOT RICHARDSON,
Secretary, Department of Health, Education, and Welfare,
Washington, D.C.

DEAR MR. SECRETARY: The National Advisory Council on Vocational Education is pleased to submit as its Seventh Report recommendations for expanding the visibility and support of Vocational Student Organizations.

For many years, Vocational Student Organizations have typified the cooperation between education and the private sector which is being so urgently sought today. These student organizations have supplied their members with the incentives and guidance which we recognize now as essential to bringing relevance to education, and which we accept as an integral part of the emerging career education concept.

We believe that Vocational Student Organizations are a neglected resource which can make great contributions toward expanding the options available to our Nation's student body.

This report attempts to bring their story to the public, and solicit nationwide support for their efforts.

The Council is deeply appreciative of the cooperation of all the student organizations, along with their advocates both in and out of the education field, in assisting us with gathering the background for this report. We are indebted to Council Member Martha Bachman, who is also Chairman of the Delaware State Advisory Council on Vocational Education, for her excellent guidance in preparing the report.

Sincerely,

LAWRENCE DAVENPORT, *Chairman.*

VOCATIONAL STUDENT ORGANIZATIONS

There is across the land a crisis of confidence in our education system. The reason is clear: There is an increasing disparity between what society needs and what our educational institutions are producing. The public is deeply concerned, and their concern is rooted in reality.

Industry, still by far the principal source of opportunities, is changing very, very rapidly. Education is not. There is a torrent of talk about change. The press is full of announcements of exciting innovations in teaching technology.

There thus is created the illusion of change in a sector of society that is painfully slow to adopt change.

Industry accepts change as a matter of absolute necessity. The inexorable competitive pressure of a free economy forces continuous innovation and its prompt, universal imitation.

American education is, on the other hand, uniquely insulated from change. Most of our institutions are deliberately exempt from any market discipline. There are some good logical and historical reasons for this, but they do not alter the consequences. American industry is absorbing change at an accelerating rate. Its manpower needs are changing in accommodation. But, these changing needs are not being met by institutions that are changing much more slowly.

Thus there is a growing gap between what industry needs and what education is producing.

Industry is beginning to recognize this. They know that the limiting factor on economic growth in the seventies and egihties will not be technology. Their laboratories are pouring out innovations faster than they can be digested. Nor will a lack of capital limit economic growth. The limiting factor will be inaccurately and inadequately educated manpower.

Miseducated people are a problem to themselves and to industry, and a threat to the economic prosperity on which so many of our hopes as a nation depend.

It is much easier to identify the relevance gap than it is to prescribe a comprehensive solution. But one part of the solution is perfectly clear: There must be direct, daily involvement of industry in practically all phases of the educational enterprise.

One splendid, yet neglected, mechanism for industry involvement is already in place: our national vocational student organizations. They have existed among us for 45 years. They reach 1.5 million more young people every year—year after year. Industry invests an estimated three million dollars a year to help pay their modest costs, but these contributions are even more important as a measure of the esteem American industry holds for this vital organization. But much more important, thousands of business, industry, labor and community representatives participate in the daily activities of these organizations. The value of the time they contribute is inestimable, but infinitely more valuable are the solid links between industry and our young people that are being built. These vocational youth organizations, whose membership is voluntary, are quietly doing more to close the relevance gap than any other movement on the educational scene.

Their out-reach is spreading across the whole spectrum of vocational concern.

DECA: Distributive Education Clubs of America for students taking marketing, merchandising and management courses in the secondary and post-secondary schools.

FBLA-PBL: Future Business Leaders of America—Phi Beta Lambda is a national organization serving students preparing for careers in business.

FFA: Future Farmers of America for students preparing for careers in ag poduction, processing, supply and service, ag mechanics, natural resources and environmental science, horticulture and forestry.

FHA: Future Homemakers of America for students enrolled in consumer homemaking and home economics related occupations courses in the secondary schools.

OEA: Office Education Association for students enrolled in office education occupations in the secondary and post-secondary schools.

VICA: Vocational Industrial Clubs of America for students taking trade, industrial, technical and health education courses in the secondary and post-secondary schools.

A new organization, designed to serve students in health occupations has been organized at the state level and will shortly seek a national charter.

And there will be others.

The work of these organizations is integral to career education. They are by no means a frivolous and optional extra-curricular activity. Students are *deeply* involved at every stage. The organizations provide an indispensable emphasis on career and civic awareness, social competence and leadership ability. Few who have witnessed the work of these organizations at first hand question their value as essential instruments in career education. Their activities are characterized by a contagious kind of zest and enthusiasm all too rare in educational endeavors.

[redacted]

Yet these vital organizations are often obliged to operate in an atmosphere of grudging intolerance or kindly contempt. School principals too often consider their activities disruptive of more formal and fashionable educational processes.

The U.S. Office of Education gives little more than lip service to encourage vocational student organizations either nationally or regionally. They have been ignored in the guidelines for State Plans for Vocational Education.

State Chief School Officers offer little positive help and often deliberately deny vocational student organizations their right to participate in state, regional and national events.

Most school boards and chief school officers rarely recognize the work of vocational youth organizations as an *integral functional part of the curriculum.*

Classroom teachers, given little support from above, often understandably ignore the vast potential of vocational youth organizations.

As a result, the 1.5 million now being served falls far short of the potential nine million students currently enrolled in vocational education programs that these organizations could and should serve.

All this is wrong. We are in the process in America of freeing ourselves from some paralyzing myths about the educational process. One such myth, the one that thwarts the marvelous potential of vocational youth organizations, is the prehistoric notion that education is what happens in classrooms—and nothing else.

We must free ourselves of that ancient superstition. We must provide—at every level—a welcoming climate in which these vital organizations can grow to their full height. They must be given every reinforcement.

We, therefore, recommend that:

1. The President of the United States continue to give visibility to vocational student organizations, that he suggest appropriate legislation to the Congress, that he include in his budget support to establish, expand and extend these organizations throughout career education;

2. The Congress recognize vocational student organizations as integral to instructional programs in all areas of career education, and support them financially;

3. The U.S. Commissioner of Education provide support for vocational student organizations by:

   (*a*) Drawing federal guidelines for future State Plans for Vocational Education which assure student organization programs an integral role in program~~s of~~ instruction;

   (*b*) Providing a guaranteed set-aside for student organizations in the U.S. Office of Education budget;

   (*c*) Providing a number of staff positions to coordinate the activities of the various student organizations, to assure that their programs and activities are in harmony with national policies and objectives, and to assist in developing, expanding and promoting such organizations;

   (*d*) Requiring teacher training institutions which receive federal funds to incorporate in their programs instruction in the methods, techniques and philosophy of student organizations;

4. The student organizations themselves must launch a massive campaign with financial and professional assistance from the U.S. Office of Education, to take their story to every local district, every State Board, every teachers' group, every State Legislature, the U.S. Congress, and to the general public;

5. The nation's mass media join in this effort;

6. Schools make the student organizations' programs available before grade 10 so students who leave school before completing twelve years of high school may be exposed to their dynamic programs.

Respectfully submitted,

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APPENDIX B

GENERAL ACCOUNTING OFFICE REPORT ON VOCATIONAL EDUCATION COMPARED WITH NACVE RECOMMENDATIONS

1. GAO: *Image.* Vocational education has a bad image. Many students and parents believed "that the vocational education student was being trained to be a 'second-class' citizen, as opposed to the ideal of going to college.

NACVE: 1st Report. "At the very heart of our problem is a national attitude that says vocational education is designed for somebody else's children. . . . We have prompted the idea that the only good education is an education capped by four years of college. This idea, transmitted by our values, our aspirations and our silent support, is snobbish, undemocratic, and a revelation of why schools fail so many students."

2. GAO: *Not enough money* is available for vocational education.

NACVE: 1st Report: We recommend that substantial Federal funds be allocated to support curriculum development, teacher training, and pilot programs in vocational education."

5th Report: "We urge Congress to accept the responsibility of appropriating the full authorizations that have been provided for down through the years for vocational and technical education. Funds must be provided for full implementation immediately, as well as providing the necessary funds for future needs."

3. GAO: *Vocational education vs. manpower training.*—"An important factor to consider is the impact that vocational education programs have on an area's manpower training programs. Youth who are not exposed to a good vocational education program in secondary school, either because it is not available or because it is rejected due to an image problem would seem to be likely candidates for manpower training programs . . . these programs are a more expensive way to train people for jobs . . . finding ways to equip young people—particular high school students—with salable skills would seem to offer prospects for reducing future needs for manpower programs."

NACVE: 2nd Report: "The Federal government should invest at least as much money in reducing the flow of untrained youth as it invests in reducing the pool of unemployed, and most of the Federal investment should be concentrated in paying the additional cost of vocational and technical post-secondary institutions."

4. GAO: *Counselling.*—Teachers and counselors are academically oriented, do not know the advantages or vocationad education, and direct promising students away from vocational education.

NACVE: 6th Report: Recommends that "State Departments of Education require work experience outside of education for all school counselors who work with students and prospective students of vocational education.

"Counselor education institutions require at least one introductory course in Career Educaion and at least one practicum devoted to an on-site study of the business-industry-labor community.

"Responsible decision-makers embarks on a immediate major campaign designed to upgrade the vocational knowledge and career guidance skills of currently employed counselors.

"Concerted efforts, including computerized guidance systems, be made to get more accurate, timely data to counselors regarding vocational and technical training and job opportunities."

5. GAO: *Job placement.*—Vocational education has been successful and has a good image in areas where the schools have a good record of job placement.

NACVE: 3rd Report: "Every secondary school should be an employment agency." "It must become a priority national objective that schools in disadvantaged neighborhoods establish employment offices at once and accept a responsibility for removing barriers to the employment of their graduates."

NACVE, under OEO funding, is conducting a survey on the feasibility of expanding the successful Cleveland School to Industry program to other cities, which would involve the high schools in opening up job opportunities for its graduates.

6. GAO: *Vocational education for the disadvantaged.*—Funds for vocational education of the disadvantaged are not being used for this purpose.

NACVE: 3rd Report: "Give priority to programs for the disadvantaged without separating the disadvantaged from the mainstream of education.

2nd Report: "What the disadvantaged want and need is access to vocational and technical programs for career preparation in the mainstream. Counseling, tutoring and other support and assistance are essential, but separateness destroys dignity."

7. GAO: *Data* on vocational education. One of the major purposes of a management information system is to develop data on program operations and results that can be used to assess program effectiveness. Much of the data from the states are incomplete or inaccurate.

NACVE: The Council is sponsoring Project Baseline, which was not acknowledged by the GAO, to develop a data reporting system so that accurate information can be obtained from every state. Council is also working with Bureau of Labor Statistics to find means to make Labor Department data more relevant to vocational education planners.

APPENDIX C

[Report to the Congress by the Comptroller General of the United States, Oct. 18, 1972]

TRAINING AMERICA'S LABOR FORCE: POTENTIAL, PROGRESS, AND PROBLEMS OF VOCATIONAL EDUCATION

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C.

To the President of the Senate and the Speaker of the House of Representatives.

This is our report entitled "Training America's Labor Force: Potential, Progress, and Problems of Vocational Education." The program is administered by the Department of Health, Education, and Welfare.

Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Office of Management and Budget, and to the Secretary of Health, Education, and Welfare.

ELMER B. STAATS,
Comptroller General of the United States.

Training America's Labor Force: Potential, Progress, and Problems

[Department of Health, Education, and Welfare B-164031(1)]

COMPTROLLER GENERAL'S REPORT TO THE CONGRESS, DIGEST

WHY THE REVIEW WAS MADE

The General Accounting Office (GAO) reviewed Federal vocational education programs in California, Michigan, Ohio, and Pennsylvania to find out whether legislative objectives were being achieved and to identify major problems. These four States received $104 million, or 22 percent of the total Federal assistance for vocational education, in fiscal year 1972.

GAO's review concentrated on high school vocational education, because the States' programs emphasized this level of education. Post-secondary vocational training in 2-year community colleges is also important, but, of the four States, only California had extensive community college programs at the time of GAO's review.

Background

The Federal Government started its involvement in vocational education in 1917 and broadened its role with the passage of the Vocational Education Act of 1963.

The objective of the act, as amended in 1968, is to provide all persons who need vocational education with access to vocational training which is:

"* * * realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and abilities."

Particular emphasis is placed on meeting the needs of the disadvantaged.

Since 1963, Federal expenditures for vocational education increased from $57 million in fiscal year 1963 to $507 million in fiscal year 1972, while State and local expenditures rose from $254 million in fiscal year 1963 to $1,951 million in fiscal year 1971.

Training America's labor force may take many forms, but perhaps none is more important—at least in potential—than vocational education. It can be used to teach skills and constructive work attitudes to all ages of the population—from youths in early years of schooling to adults who have developed poor work habits or who have discovered that yesterday's job skills are obsolete in today's world.

FINDINGS AND CONCLUSIONS

The four States have set ambitious goals for vocational education and have done considerable planning toward achieving these goals. Attaining these goals will require time; talent; hard work; cooperation; and, according to State officials, money—lots of money. Some progress has been achieved; the percentage of the Nation's secondary students enrolled in vocational education has risen from 24 percent in fiscal year 1965 to 38 percent in fiscal year 1971.

Vocational education not provided to all who need it

However, the objective of the legislation had not been achieved nationwide or in any of the four States. According to Department of Health, Education, and Welfare (HEW) data, 37 percent of the Nation's high school students presumed to need vocational education—primarily those not going on to 4-year colleges—were not receiving it. In the four States, even greater proportions—44 to 75 percent—of the high school students needing it were not receiving it.

Vocational educators say that the causes of this situation are—

Insufficient financial support at all levels of government and

An unfavorable image of, and a resulting aversion to, vocational education.

GAO's review showed indications of both of these problems but also showed that the image problem was not always present. In some locations, vocational programs are extremely successful in gaining community acceptance, attracting students, and resulting in jobs for graduates. No direct research or systematic information gathering has been performed on the exact nature or extent of the image problem. This situation demonstrates a need for HEW to undertake research into the exact nature and extent of vocational education's funding and image problems. (See p. 12.)

Funds not properly used for the disadvantaged

In the four States, funds intended by the act to support special programs or services for disadvantaged persons unable to succeed in the regular vocational education program were often not used for this purpose. Special assistance includes tutors, remedial education, and modified or special programs.

Some State and local education officials did not fully understand the intended use of funds for disadvantaged persons and therefore used these funds for regular vocational programs.

As a result of discussions with GAO, HEW issued clarifying guidelines and planned to hold regional conferences to provide further clarification.

These actions should provide the needed clarification, but to be effective the guidelines will have to be enforced through increased HEW and State program monitoring. (See p. 22.)

Better management information needed

HEW, the four States, and independent evaluators believe that the current management information systems of HEW and the States did not provide sufficient data to adequately evaluate the results of programs, as required by the act. Data furnished inaccurate or incomplete.

At the time of GAO's review, two of the States had made some progress in improving their management information systems. There is a need for HEW to coordinate with State and local education agencies in defining the information needed for an adequate management information system and to assist these agencies in establishing such systems. (See p. 32.)

RECOMMENDATIONS OR SUGGESTIONS

The Secretary of HEW should:

Initiate research into the exact nature and extent of vocational education's financial and image problems, with a view toward determining what actions are necessary to more fully achieve the objective of the act. (See p. 19.)

Instruct HEW's regional offices to monitor more closely the use of funds for educationally disadvantaged persons to insure that these funds are being used as intended by the act in compliance with HEW guidelines. (See p. 30.)

Require the States to describe procedures they intend to employ so that funds for the disadvantaged are used properly. (See p. 30.)

Coordinate the efforts of HEW and the States in defining the information needed to adequately evaluate program results and should assist the States in the design and the implementation of management information systems. (See p. 37.)

Take action so that HEW and the States verify the accuracy and completeness of reported information. (See p. 37.)

AGENCY ACTIONS AND UNRESOLVED ISSUES

HEW concurred with GAO's recommendations. Actions have been taken or promised to conduct the required research, to properly control the use of disadvantaged funds, and to improve the management information systems. The actions should result in needed program improvements if carried out nationwide.

State officials also generally concurred with GAO's recommendations, but they and HEW said that GAO should have included more information on the accomplishments and potential of vocational education. Although GAO found some programs which appeared to be operating effectively, the incomplete and inaccurate management information prevented unqualified conclusions on overall program effectiveness.

MATTERS FOR CONSIDERATION BY THE CONGRESS

Although progress has been made, substantial additional efforts will be needed by both the States and the Federal Government to fully achieve the objectives of the Vocational Education Act of 1963.

Chapter 1.—Introduction

> "New methods, materials, and machines are shaping a new world in which knowledge and skill are paramount. Much more than mere literacy and physical vigor is required of most people working with the new processes of an advancing technological society." Department of Health, Education, and Welfare, June 1969.[1]

In this age of rapid technological change, America's labor force is faced with the necessity of training and retraining to keep pace with an ever-changing demand for job skills. Training may take many forms, but perhaps none is more important—at least in potential—than vocational education. It can be used to teach skills and good work attitudes to all age groups of the population—from youths in early years of schooling to adults who have developed poor work habits or who have discovered that yesterday's job skills are obsolete in today's world. Recognizing the value of such training, the Nation has invested billions of dollars—Federal, State, and local—in vocational education programs.

FEDERAL PARTICIPATION IN VOCATIONAL EDUCATION

The Federal Government has long recognized the importance of vocational education in training America's labor force. Since 1917, with the passage of the Smith-Hughes Act (20 U.S.C. 11), the Government has helped prepare persons for the labor market by providing funds to the States for vocational training. The George-Barden Act, which was effective from 1946 to 1968, provided additional Federal support to the States, authorizing funds for administration, vocational guidance, and training.

To help cope with the Nation's employment problems, the Congress passed the Vocational Education Act of 1963 (20 U.S.C. 1241). The act shifted program emphasis from training in limited occupational cateories—agricultural, home economics, trade, and industrial—to training or retraining in a broad range of occupational skills for major groups of people—high school students (secondary); high school graduates (post-secondary); older persons; and persons with academic, socioeconomic, or other handicaps.

As amended in 1968, the act authorized appropriations for regular vocational programs, programs for students with special needs (disadvantaged and handicapped), exemplary programs and projects, consumer and homemaking

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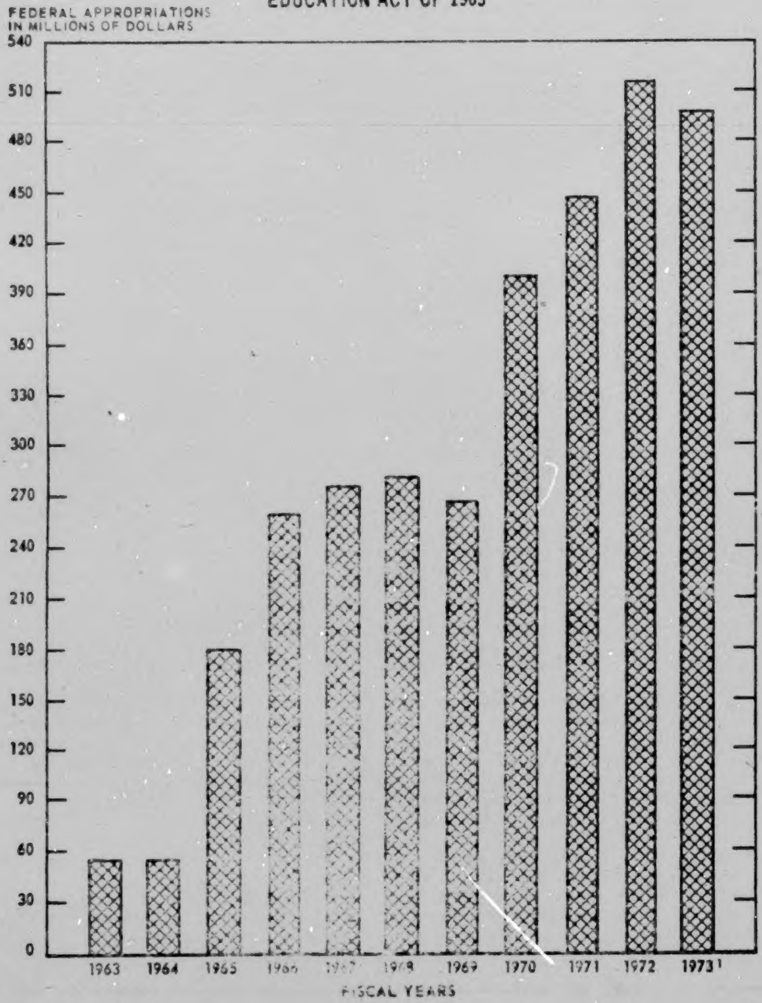
[1] Source: HEW booklet that summarizes the Vocational Education Amendments of 1968, p. 1.

GROWTH OF FEDERAL PARTICIPATION IN VOCATIONAL EDUCATION SINCE PASSAGE OF THE VOCATIONAL EDUCATION ACT OF 1963



[1] Amount requested

education, cooperative (industry/school) programs, work-study programs, research and training, curriculum development, and personnel training. The amendment also required the establishment of national and State advisory councils to evaluate these vocational education programs and to recommend changes as warranted.

Following enactment of the Vocational Education Act of 1963, expenditures for vocational education by all levels of government—Federal, State, and local—increased dramatically. Federal expenditures increased from $57 million in fiscal year 1963 to $447 million in fiscal year 1971, while State and local expenditures rose from $254 million in fiscal year 1963 to $1,951 million in fiscal year 1971. The increase in Federal expenditures is illustrated in the following chart.

ADMINISTRATION OF VOCATIONAL EDUCATION PROGRAMS

The Department of Health, Education, and Welfare (HEW)—the Federal agency responsible for vocational education programs—administers the programs through its Office of Education which has assigned the task to its Bureau of Adult Vocational and Technical Education. Field activities are administered by the Bureau's regional directors stationed in HEW's 10 regional offices. State departments of education are responsible for administering the programs at the State level.

States desiring to receive Federal funds for any fiscal year must submit a State plan to the regional adult, vocational, and technical education director for approval. The plan must meet the requirements of the act and of HEW's implementing guidelines. Funds for permanent programs are allotted annually to the States on the basis of the number of persons of various age groups and the States' per capita income. Funds are also available for certain programs authorized for only a limited period. These funds are allotted solely on the basis of the States' population in specific age groups.

Chapter 2.—Vocational Education Not Reaching All Who Need It

The objective of the Vocational Education Act—that all persons needing vocational education receive it—is far from being fully achieved at the high school level. In some high schools, students seem not to want vocational education even though it is available and facilities are underutilized. In other locations it is not even available.

The apparent inability of vocational education programs to attract the interest of students, parents, teachers, and taxpayers and to thereby become attractive training programs for those who could benefit from them is not a universal situation. Some high school vocational education programs are extremely successful in gaining community acceptance, attracting students, and resulting in jobs for graduates. The reasons for the wide variation among schools and locations are not clear, and not much research into the causes has been undertaken.

GOAL VERSUS ACHIEVEMENT—A WIDE DISPARITY

The goal of the Vocational Education Act, as stated in the 1968 amendments, is:

"* * * that persons of all ages in all communities of the States—those in high school, those who have completed or discontinued their formal education and are preparing to enter the labor market, those who have already entered the labor market but need to upgrade their skills or learn new ones, those with special educational handicaps, and those in post-secondary schools—will have ready access to vocational training or retraining * * *."

The legislative history of the 1963 act and of the 1968 amendments indicates that the Congress intended that all persons who need vocational education should receive it and that anyone not completing a 4-year college program leading to a baccalaureate degree was presumed to need it.

The four States we reviewed had plans to provide vocational education to the majority of secondary students not going on to 4-year colleges. But, as shown below, only a small proportion of these students were receiving it in 1971, according to estimates by State officials and consultants.

	Percentage of high school students		Percentage of those presumed to need vocational education who are not receiving it
	Presumed to need vocational education[1]	Receiving vocational education	
California	80	20	75
Michigan	67	28	58
Ohio	60	25	58
Pennsylvania	50	28	44
Nationwide	60	38	37

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[1] Primarily students not going to 4-year colleges. Students not receiving vocational education in high school can receive it under postsecondary training programs such as those offered in a 2-year community college.

Some progress has been achieved; in fiscal year 1965 only 24 percent of the Nation's high school students were receiving vocational education.

Reasons for the problem—educators' viewpoint

Vocational educators at all levels have stated to us and in published reports that many high school students who need vocational education are not receiving it because (1) not enough money is available for vocational education and (2) it has a bad image (too many people—students, parents, counselors, and nonvocational teachers and administrators—think that vocational education is not the road to a successful careerr, because this can be attained only through a college degree).

The following are representative views expressed by vocational educators about the funding and image problems.

> Too many persons relate vocational education to "shop" or "manual training" classes of the past, which became the repository of any child considered to be below average.
>
> Teachers and counselors are academically oriented and do not know about the advantages of vocational education. As a result, they direct promising students away from vocational education courses.
>
> Twice the amount of money presently available is needed to achieve the objectives of the act. The current level of Federal funding is comparable to a doctor trying to treat a large wound with a bandaid.
>
> At the local level, there is apathy toward vocational education. For example, one State hoped to build a vocational school in a certain county, but local voters turned down a tax proposal for providing their share of the funds.

We believe that the funding and image problems may be interrelated and self-perpetuating; vocational education's poor image could prevent it from being adequately funded and inadequate funding could make it difficult to overcome the bad image.

Evidence tends to be conflicting

Our review showed indications of both an image problem and a lack of funds, as well as underutilized facilities, for vocational education in some school districts. However, we also noted situations where there did not appear to be an aversion to vocational education. These circumstances, discussed below, demonstrate the desirability of a detailed evaluation of the problem. Our review showed, however, that no specific studies on the image problem had been made.

Funding—is it enough?

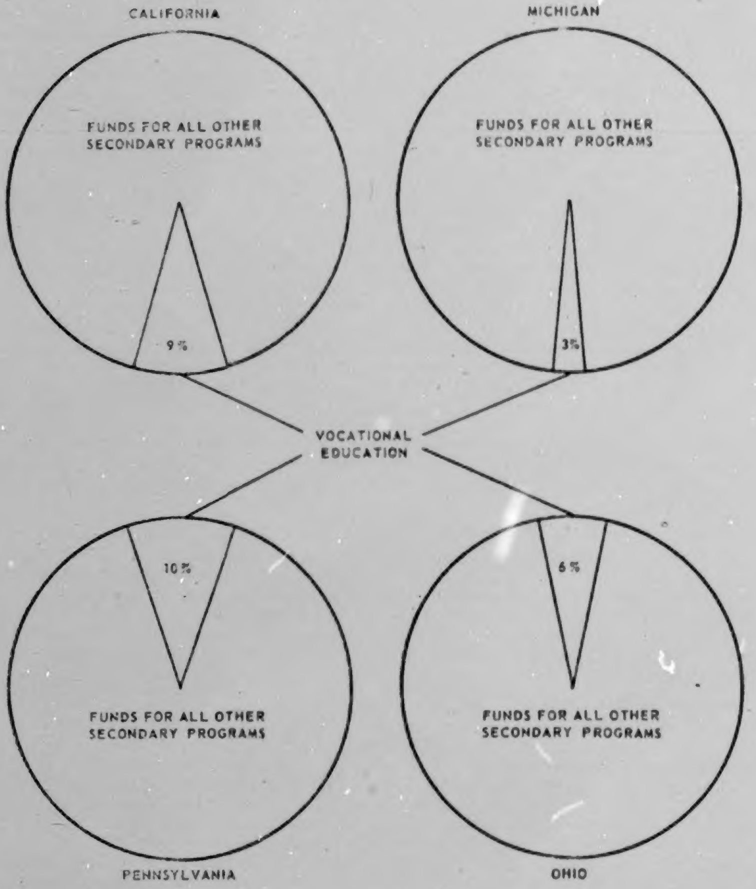
Vocational educators say they are not getting a fair share of today's education dollar, even at the secondary level where vocational education is most concentrated. We are not able to comment on the fairness of vocational education's share of total expenditures for education because of the subjective nature of such a judgment. The following chart illustrates, however, the percentages of the total expenditures for secondary education which were applicable to vocational education in the four States in fiscal year 1970.

We did find, however, that some school districts do not allocate any of their education dollars to vocational education. The following table, listing the total number of school districts and secondary students in the four States and the number of districts and students without any vocational programs during the 1970–71 school year, illustrates this.

State	Number of districts	Number of students	Number vocational programs	
			Districts	Students
California	358	1,425,000	7	6,000
Michigan	527	593,000	106	46,000
Ohio	628	704,000	58	33,500
Pennsylvania	579	525,500	49	39,000

We could not determine the reasons for this situation. However, if the residents of school districts that did not have vocational education thought they needed it, it probably would have been made available.

PERCENT OF SECONDARY EXPENDITURES USED FOR VOCATIONAL EDUCATION FISCAL YEAR 1970



NOTE: Many students receiving vocational education also take subjects included under funds for all other secondary programs.

Vocational education's image—the differing views in large cities

The aversion to vocational education seemed to be most prevalent in the large cities included in our review, even though not all schools or vocational courses in the large cities had the problem.

In one large city, for example, equipment worth over $250,000 for a course in machine shop was not being used to capacity. The school officials said that the equipment was used to only one-third of available capacity, because students and their parents believed to be a "second-class citizen," as opposed to the ideal of going to college and achieving meaningful positions. The officials said this attitude prevailed, even though job openings were available locally for graduates of this course. On the other hand, we found instances in which vocational education's image appeared to be one of "a road to success."

In a comprehensive high school in a large city, school officials told us that there was generally a favorable image of vocational education. In fact, the school advertises its commercial food course in junior high schools throughout the city, and the students come from all over the city to attend the course. According to the officials, the course is always fully attended and graduates have no trouble finding jobs.

Officials in another large city told us that vocational education had an image problem in that city at one time, but that they thought it had been overcome for the most part. They said this had been achieved through such measures as constructing new buildings, getting better quality students into vocational curriculums, getting good industry cooperation, and ridding guidance counselors of their preoccupation with college preparatory curriculums. As evidence of the lack of an image problem, officials in this city cited strong citizen support for vocational education and one vocational school which has an excellent reputation in the city. This school, they said, had 600 applications for the 1971–72 school year but could accept only 450 new students. They said the school's reputation had spread by word of mouth and was based largely on its record for placing its graduates.

A favorable image in some locations

The medium- and small-sized cities included in our review seemed to have much less of an image problem than the large cities. Vocational education officials in one medium-sized city said the image of their program could be, and was being, improved. The attitudes of nonvocational teachers and counselors was the area most needing improvement. Vocational education's image was such, however, that it had won widespread acceptance by the students, and the vocational classes were enrolled to capacity. According to the officials, the new vocational-technical school being opened for the 1971–72 school year was badly needed. Some of the most enthusiastic supporters of vocational education in this city were the vocational students. Officials said that vocational education's image was being improved by such measures as (1) the new vocational-technical center with its campus-like atmosphere, (2) the mixing of vocational and nonvocational students in nonvocational classes to the point that the teachers in these classes frequently could not tell them apart, and (3) the heavy involvement of the State employment service in the placement of vocational students into part-time jobs during school and into permanent jobs upon graduation.

CAREER EDUCATION PLANNED

The Vocational Education Act requires each State desiring funds to submit a State plan for vocational education which is reviewed by HEW for compliance with the act and with HEW's implementing guidelines. The four States' plans and the interpretation of objectives by State officials were consistent with the act, and the State officials agreed on the general direction to be taken in vocational education. They envision that the ideal system will include:

A kindergarten through sixth-grade program designed to create an awareness and a respect for work;

A seventh-and eighth-grade program to provide exposure to the whole spectrum of employment and to build a basis for the career exploration program;

A ninth- and tenth-grade career exploration program in which students will explore work possibilities and determine what they want to do;

A program for dropout-prone youths of ages 14 and 15;

A preparatory job training vocational education program for the majority of the students in the 11th and 12th grades (secondary level), or at age 16, which provides a significant breadth of vocational education so that any student, regardless of ability, can be trained;

a post-secondary technical program for those students who have graduated, or have dropped out, from high schools and want to enter the technical fields; and

An adult vocational education program to serve those adults who need retraining or upgrading of their present skills.

None of the four States, however, were able to achieve what they believed to be the ideal system. The States have concentrated on the last three phases listed above—secondary, pose-secondary, and adult—with the greatest amount of effort expended at the secondary level.

The HEW Commissioner of Education has been actively supporting an educational approach, called career education, which is quite similar to the system envisioned by the four States. Career education models are being developed at six locations around the country with HEW assistance (financial and technical), but this development is not scheduled for completion until December 1973.

POTENTIAL EFFECT ON MANPOWER PROGRAMS

An important factor to consider is the impact that vocational education programs have on an area's manpower training programs. Youth who are not exposed to a good vocational education program in secondary school, either because it is not available or because it is rejected due to an image problem, would seem to be likely candidates—after they realize that they do not have salable skills in the job market—for manpower training programs. Over 300,000 young people, aged 21 or younger, entered federally funded manpower training programs during fiscal year 1971.

Such programs may or may not be as effective as vocational education courses in teaching job skills in a regular school environment—we know of no studies comparing the two—but these programs are a more expensive way to train people for jobs because stipends are paid to enrollees and a range of supportive services is generally provided. Finding ways to equip people—particularly high school students—with salable skills would seem to offer prospects for reducing future needs for manpower programs.

CONCLUSIONS

Not all persons who need vocational education are receiving it.

The vocational educators see the primary problems as insufficient funding and a bad image caused by an overemphasis on academic (4-year college preparatory) curriculums. We believe that these factors may be interrelated and self-perpetuating; an aversion to vocational education results in an unwillingness to provide funds and the lack of funds results in poor or insufficient programs and/or the inability to promote a more favorable image. Yet there has been little or no research or systematic information gathering on the exact nature and extent of the image problem and its relationship, if any, to the availability of funds for vocational education. The wide variation in vocational education's image from location to location and school to school indicates that such image problems, as may have existed, have been overcome in some instances.

We think that research is needed in this area so that a better understanding can be had of why all those persons who would benefit from vocational education either do not receive it or do not want it. This research could be undertaken by the recently authorized National Institute of Education or could be undertaken jointly by the Federal and State governments. In any event, a strong Federal leadership role would appear to be necessary so that the results of the research can be adequately disseminated throughout the country.

The questions studied during this research should relate to:

1. The extent that aversions to vocational education are caused by a widespread view that only a college degree can lead to a successful career.
2. The reason for the apparent absence of an aversion to vocational education in some schools.
3. Whether aversions to vocational education programs are caused by the reputed poor quality of some programs and, if so, whether that reputation is warranted.
4. Whether statistics and other information on the careers of vocational graduates would impress those persons who have an aversion to vocational education.
5. The relationship of present levels of funding to vocational education's image problem where it exists, and the probable impact of additional funding on that problem.
6. The probable impact of a career education program on the attitudes of those concerned.

The importance of understanding more about why vocational education programs are successful in some locations and not in others is that this type of training appears to be the key to the job opportunities opening up in this decade. According to the Department of Labor, eight out of 10 jobs to be filled during the 1970s will be open to people who have not completed 4 years of college; therefore, a vocationally oriented education would seem to provide greater opportunity for obtaining these jobs.

RECOMMENDATION TO THE SECRETARY OF HEALTH, EDUCATION, AND WELFARE

We recommend that the Secretary of HEW undertake research into the exact nature and extent of the funding and image problems attached to vocational education, with a view toward determining what actions may be necessary to more fully achieve the objectives of the Vocational Education Act.

AGENCY COMMENTS AND ACTIONS

The Assistant Secretary, Comptroller, agreed with our recommendation, stating that:

"The Office of Education, through its central and regional offices, will undertake research into what appears to be primarily an attitudinal matter. In addition, a research study of a positive and definitive type will be mounted as soon as practicable to produce a report on vocational education graduates who have been employed for five or more years."

Although officials of the four States also agreed with our findings and recommendations, they—supported to some degree by HEW—believed that more balance could have been achieved in our report by adding the positive accomplishments made in vocational education. The following comments made by an Ohio official illustrate the types of positive comments he believed were needed in the report.

"In Ohio during fiscal year 1971 we served over 423,000 youth and adults through vocational education. At the national level preliminary figures indicate the approved vocational programs served over 10 million people in the nation. We realize that the number of people served is inadequate, but can you tell me of any other work training program in this nation which has anywhere near the contribution to the nation as the vocational education program? Can you identify any other Federal investment which generates State and local expenditures of $5 to $6 for every Federal dollar expended?

"While the achievements of vocational education are massive, they are still limited in terms of the quantity of services needed. The funding, however, has been totally inadequate, both in terms of authorization within the Federal legislation and appropriations under the act. A quantification of the goals established and an assignment of dollar values to such goals indicates that an appropriation of approximately $4.5 billion would be needed in order to implement the Federal share of the goals. The report includes no bench marks from the past, nor projection of needs for the future and no comparison with other Federal investments, such as the fact that at the Federal level they are investing approximately $14 in higher education for every dollar in vocational education."

Some of these matters were beyond the scope of our review. Because of this and the incomplete and inaccurate management information discussed in chapter 4, we could not arrive at unqualified conclusions on program accomplishments.

CHAPTER 3.—FUNDS TARGETED FOR THE DISADVANTAGED MISS THE MARK

Some Federal funds which should have been used for special programs or services for persons unable to succeed in vocational education without such services were used instead for regular vocational education programs. This happened in the four States because most State and local officials did not properly understand HEW's use of the term "disadvantaged." As a result, the funds were not available for persons needing the special programs or services.

The fact that many State and local school officials misunderstood the requirements of the Vocational Education Act and of HEW's implementing guidelines regarding the use of funds for the disadvantaged indicated that more definitive guidance by HEW is necessary. Also, if HEW and the States had more closely monitored implementation of the requirements, misunderstandings would have been apparent much sooner and attempts could have been made to correct the situation.

The 1968 amendments to the Vocational Education Act require that not less than 15 percent of the basic grants to States and all of the funds appropriated specifically for this purpose be used:

"* * * for persons * * * who have academic, socio-economic, or other handicaps *that prevent them from succeeding in the regular vocational education program*." (Italic supplied.)

HEW calls such persons disadvantaged. The definition of "disadvantaged" for vocational education differs from the more common definitions used by HEW and the Department of Labor for other programs which define "disadvantaged" primarily on the basis of family *income*. For vocational education, HEW defines "disadvantaged" on the basis of a person's *inability to succeed* in the regular program without special assistance, such as might be provided by individual tutors, consultants, psychologists, instructional aides, diagnostic testing, modified or special programs, remedial education, and extension of the school day.

HEW does not consider all persons from low-income families to be necessarily disadvantaged, because many students from such backgrounds can and do succeed in regular programs. Some State and local officials did not understand this requirement and apparently were confused by the different definitions of "disadvantaged" used for different programs. As a result, vocational education funds targeted for persons unable to succeed in regular programs without special assistance did not serve the purpose for which they were intended.

Of the $79.2 million in Federal funds made available to the four States for fiscal year 1970, $13.8 million, or 17 percent, was allotted to special programs for disadvantaged persons.

HEW sponsored meetings of school administrators and vocational educators in March and April 1969 to provide these officials with guidelines for defining "disadvantaged" persons and programs; these guidelines were published in booklet form in October 1969. In February 1970, HEW issued another instruction, entitled "Suggested Utilization of Resources and Guide for Expenditures," providing further guidance. In May 1970, manditory regulations were published in the Federal Register.

In essence, the HEW guidelines repeated the requirement of the act that the funds for disadvantaged students were to help persons unable to succeed in regular vocational programs and were to be used only to pay the costs of providing special programs, modifying existing programs, or furnishing supplementary special services.

The State plans, approved by HEW for the four States, repeated the requirements of the law and HEW's instructions with little or no elaboration. Thee plans did not indicate what procedures would be used to insure that funds for the disadvantaged were properly used. If HEW had required the States to describe these procedures in their State plans and if the procedures were effectively followed, more of the funds might have been used to provide special programs or services to the disadvantaged. The descriptions could include the types of information local school districts would be required to provide to the States and the type and frequency of the State's monitoring of local districts.

CALIFORNIA

Of $4.9 million in Federal funds received for disadvantaged students in fiscal year 1970, California allocated $3.6 million to local school districts with the instruction—consistent with HEW's guidelines—that the funds be used for programs and services for persons who could not succeed in regular vocational programs without special assistance. The balance, $1.3 million, was allocated on the basis of written proposals from school districts, stating that funds were needed for specific programs for persons who could not succeed in the regular program.

To evaluate the State's administration of funds for the disadvantaged, we concentrated on the $3.6 million general allocation. In visiting several school districts, we found that local officials did not seem to be familiar with HEW's definition of "disadvantaged" persons and programs and did not follow the State's instructions to seek out those persons who could not succeed in the regular vocational program. In most instances, the programs funded under the general allocation were attended by regular students and did not provide special assistance for the disadvantaged. For example:

> One school district in California claimed a total expenditure of $46,000 for the disadvantaged in 14 trade and industrial courses. We reviewed four of these 14 courses which district officials said had used funds for the disadvantaged. Instructors for the four courses told us that requirements

> for enrollment in the courses would, if anything, probably prevent disadvantaged students from enrolling and that no special services for the disadvantaged were provided.

We reported our findings to the California State Director of Vocational Education, who told us that education programs for the disadvantaged lacked effective State and Federal direction. He said further that a review would be made in each school district in California to insure that all programs were in compliance with Federal criteria.

MICHIGAN

Although Michigan's written procedures for allocating funds for special programs for the disadvantaged also recognize the intent of the act and HEW's guidelines to identify and help persons who cannot succeed in the regular program, these procedures were not followed. In fiscal year 1970, Michigan made a general allocation of $860,000, or 35 percent of its $2.47 million in Federal funds intended for the disadvantaged, to local school districts to purchase equipment for their regular vocational education programs. The school districts were not told that the funds were to be used for the disadvantaged. State officials said that, although the equipment was for regular vocational programs, some disadvantaged students may have had the opportunity to use it.

The remaining 65 percent—$1.61 million—was allocated on the basis of written proposals from local school districts requesting funds for special programs. Although the State required the proposals to contain information on the objectives and goals of the programs and criteria for student selection, many proposals were approved that did not contain this information. In visits to local school districts, we found that some programs approved for the disadvantaged were open to all students and were not designed to serve persons unable to succeed in the regular vocational program. For example:

> For one school district, the State approved a "Business Education Exemplary Curriculum" project for $63,550. Students were eligible who attended one of two inner-city high schools in areas with poor socioeconomic populations and who had taken no previous high school business education courses. The local school officials responsible for the program said that no attempts were made to identify students who were disadvantaged. Rather, all students who had signed up for the traditional business courses were admitted into the new course.

State officials—explaining why they had made a general allocation of funds, intended for the disadvantaged, to purchase equipment for regular vocational programs—said that the requests for equipment funds exceeded the amounts available for this purpose; therefore, funds for special programs had been used to partially meet this need. They explained further that these funds were distributed to school districts on the presumption that some people below poverty levels lived in the area and would use the equipment. In our opinion, these comments by State officials indicate a misunderstanding of the intent of the act and a lack of understanding of HEW's implementing guidelines.

State officials told us that, because of a lack of staff to adequately monitor local programs, they had not been aware of the violations but that in the future they would increase their monitoring activity.

OHIO

Ohio's procedures governing the use of vocational education funds for disadvantaged students recognize the intent of the act and HEW's guidelines to identify and help persons who cannot succeed in the regular program. However, the procedures were not always followed.

Fiscal year 1970 Federal funds for the disadvantaged—$2.67 million—were allocated to local school districts on the basis of written proposals. In our visits to selected local school districts, we found that the programs in operation were not the same as those described in the approved proposals. Persons participating in the programs were not necessarily disadvantaged, and often the programs were part of the regular vocational program. Further, local officials appeared to have misunderstood HEW's guidelines regarding the use of funds for disadvantaged persons. For example:

> On May 4, 1970, the State approved $42,800 for equipment for an "Office Duplicating and Communication Specialist" course. The school officials acknowledged to us that the majority of students enrolled in the

course could not qualify as disadvantaged. They stated that, at the time of approval, they were not aware that the funds could be used only for specific persons who were unable to succeed in the regular programs and who required special assistance.

In discussing our findings, State officials told us that they understood the definition of "disadvantaged" as intended by the act but that they had not been aware that local districts did not have an adequate understanding of the purpose of the special funds. They said State monitoring had not disclosed this situation, because the State was slow in building up its monitoring staff. They said that an increased staff (recently expanded from one to three) and a new requirement (local school districts must submit information on each student served indicating the nature of the disadvantagement which made the student eligible) should prevent this situation from happening in the future.

PENNSYLVANIA

Pennsylvania allocated $3.69 million of its Federal vocational education funds in fiscal year 1970 for programs for disadvantaged students. Of this amount, $1.83 million was allocated to local school districts on the basis of a formula which took into consideration the total number of children in each district and the number of those from families on public assistance, in foster homes, and in institutions for the neglected or delinquent; $940,000 was allocated to the schools in the two largest cities in the State; and the remaining $920,000 was allocated on the basis of written requests from school districts for specific programs.

Pennsylvania's definition of "disadvantaged," consistent with the act and HEW's guidelines, includes persons who have academic, socioeconomic, cultural, or other handicaps. However, State officials have placed limited emphasis on the fact that, to be considered disadvantaged, such persons must be unable to succeed in regular vocational courses.

In specific programs conducted by selected local school districts, we found that this lack of emphasis resulted in the programs' being open to all persons and that only limited attempts were made to identify persons requiring special assistance. For example:

> A large city school district received $884,899 for a vocational project. Part of this amount ($607,920) was designated as chargeable to the disadvantaged allocation, on the basis of the school district's estimate that 69 percent of the students in the project were disadvantaged. However, no attempts were made in the city high schools to identify specific students who could not succeed in the regular program.

State officials acknowledged that general allocations to schools with a large percentage of low-income or academically deficient students did not meet the intent of the act, and they attributed the improper allocations that occurred early in the program to an inexperienced staff. The officials pointed out, however, that the State had instituted improved controls—certifications by local school officials that programs funded by the general allocations contain disadvantaged students; evaluation reports showing numbers of students, achievements, and objectives met; and field visits by State personnel—to insure that funds for the disadvantaged reach those in need. State officials also told us that State personnel making field visits would seek to insure a better understanding of the objectives of the act.

HEW officials in the three regional offices responsible for the four States included in our review said that insufficient staff had prevented them from adequately monitoring the States' use of funds for the disadvantaged. They also said that they would place increased emphasis on the proper use of funds for the disadvantaged.

On July 19, 1971, we met with HEW headquarters officials to discuss our findings. They agreed that we had identified problems which demonstrated a lack of clear understanding of the requirements of the act and HEW's implementing guidelines.

On July 26, HEW issued a memorandum to the States reclarifying the intent of the act, stating in part that:

"The basic criterion for identification of a person for participation in a vocational education disadvantaged * * * program is *inability to succeed in the regular program without special assistance or services.* * * * Determination of 'inability to succeed in vocational education' is not a simple matter and may well vary by instructional program and by State. Many criteria such as test scores, academic performance, or drop out, are indicators which may be used."

* * * * * * *

"In any case, the expenditures reported must relate specifically to individuals served and may not be a blanket application to an unidentified group or a pro rata share of a particular program cost. * * * *States should immediately disseminate to local educational agencies the criteria used and other information necessary to develop uniform understanding of disadvantaged * * * programs.*

"This office is planning additional regional conferences to discuss and further clarify the procedures relating to disadvantaged * * * programs. Also available in the next few months will be a publication, * * * which presents various classifications and descriptions of categories of disadvantaged * * *."

A revised version of the "Suggested Utilization of Resources and Guide to Expenditures" was published in July 1972. It provided extensive guidance on the proper use of Federal funds for the disadvantaged. This guidance, together with HEW's memorandum and the planned regional conferences, should provide the clarification needed. However, adequate program monitoring by HEW and the States is needed to insure implementation of the improved procedures.

RECOMMENDATIONS TO THE SECRETARY OF HEALTH, EDUCATION, AND WELFARE

The Secretary of HEW should instruct its regional offices to more closely monitor the use of Federal funds for special programs and services for the disadvantaged to insure that these funds are being used as intended by the act and HEW's implementing guidelines. HEW should also require the States to describe, in their State plans, the procedures they intend to employ to insure that funds for the disadvantaged are properly used.

AGENCY COMMENTS AND ACTIONS

The Assistant Secretary, Comptroller, agreed with our recommendations, stating that:

"One of the States studied has established stricter controls for local education agencies for use of disadvantaged funds. Regional staff are emphasizing to the other States the concerns reflected in the GAO study and are expanding monitoring activities."

Officials of the four States involved also agreed, although officials from one State complained that "no mention is made of programs that *were* in compliance with the technical definition of disadvantaged." We observed some programs that we believed met the intent of the act. But, as indicated above, the majority of programs reviewed did not meet this intent.

The actions promised or taken by HEW and the States should result in needed program improvements.

CHAPTER 4.—MANAGEMENT INFORMATION INCOMPLETE AND INACCURATE

One of the major purposes of a management information system is to develop data on program operations and results that can be used to assess program effectiveness. The information on vocational education which the States are required to report to HEW is not adequate to evaluate program results. In addition, information submitted by the four States to meet HEW's requirements was often inaccurate or incomplete.

Because of dissatisfaction with the information required by HEW, two of the States and a county in a third State have started to develop their own systems so they will be better able to evaluate the results of their programs.

The act (82 Stat. 1095) requires that the Commissioner of Education:

"* * * shall collect data and information on programs qualifying for assistance *** for the purpose of obtaining objective measurements of the effectiveness achieved in carrying out the purposes of such programs."

In addition, HEW's implementing instructions (45 CFR 102.4(j)) require that:

"Evaluation of the results of the program of instruction will be made periodically *** by the State *** and continuously on the local level with the results being used for necessary change or improvement in the program ***."

BETTER INFORMATION NEEDED ON PROGRAM RESULTS

The information concerning program results which HEW required the States to report consisted of summaries of the number of students graduating with major training in each of 10 types of employment fields and their employment status about 4 months after graduation. The reports show the number of graduates (1) available for employment and, if unavailable, whether they are continuing their education, (2) unemployed, (3) employed in a job in, or related to, their vocational training field, and (4) whose employment status is unknown.

Comparable information has not been reported for nonvocational graduates; therefore, the comparative advantages of vocational education could not be adequately evaluated. Also, no information was reported on the graduates' status after the 4-month followup.

Officials in all four States criticized HEW's requirement for (1) followup data on *all* vocational graduates and (2) data only 4 months after graduation. Some said this time period was too soon after graduation to arrive at valid conclusions about the benefits of vocational education. Some said followup would be more meaningful if it were limited to a statistical sample of enrollees instead of including all enrollees as required by HEW. Such a sample would, they believe, permit more detailed data to be obtained on such items as type or job, initial and subsequent earnings, advancement, employees' job satisfaction, and employers' evaluations of the quality of the employees' vocational training. They suggested that data on the persons in the sample should be obtained periodically over a longer period after graduation—1 year, 5 years, or as long as 10 years after graduation.

Because of dissatisfaction with the HEW system, Ohio and Pennsylvania started implementing their own management information systems.

INACCURATE AND INCOMPLETE DATA

In three of the four States, we found that the enrollment data reported to HEW was inaccurate. (Ohio's computerized system provided accurate data.) Furthermore, in all four States the data reported on the status of vocational education graduates 4 months after graduation (e.g., employed, type of job, in college, etc.)—particularly in large cities—was often too incomplete to permit assessment of program results. All four States recognized the weaknesses and were taking steps to overcome them, e.g., Pennsylvania was also developing a computerized system for compiling the data.

The inaccuracies in enrollment data produced overstated enrollment and graduation figures which, in most cases, were caused by counting the enrollment in individual vocational classes rather than by counting the actual number of students enrolled. Those students taking more than one vocational course were counted more than once.

Incomplete followup data was caused by poor responses to questionnaires sent to vocational graduates. Although a 100-percent response is not usually expected or necessary, we noted response rates as low as 36 percent. According to a State official, a followup with this low rate of response is biased because only the better students respond.

A more intensive effort, consisting of additional mailings and personal contacts, would be necessary to bring the low response rates to a more acceptable level. Such efforts are expensive, but using a statistical sample could help to reduce this expense.

The Department of Labor's Manpower Administration has been experimenting with another technique for followup on graduates from its manpower programs. This technique involves the use of Social Security records for analyzing the graduates' earnings records. Although individuals' earnings records are highly confidential, analysis have been performed by the Social Security Administration for the Department and the overall results were provided to the Manpower Administration. The Department has determined that this system has considerable value in evaluating the results of programs designed to improve the employability and the earnings of the participants and is developing the system for general application to manpower programs.

We believe that HEW should consider the possibility of using statistical sampling, Social Security records, or a combination of the two in followup of graduates from vocational education.

SIMILAR FINDINGS BY EXPERT EVALUATORS OF VOCATIONAL EDUCATION PROGRAMS

The Center for Vocational and Technical Education at Ohio State University has compiled and summarized the findings of numerous expert evaluators of vocational education. A consensus of these findings, prepared by the Center, showed that these evaluators have encountered problems with information on program results similar to those we found. One of the Center's 1970 publications commented:

"Follow-up studies continue to be plagued by some inherent hazards—reliance upon questionnaires and interviews and the attendant problems of accounting for non-respondents ***. Research workers agree that decisions are being made about occupational-education and training programs without adequate information about their current or potential effectiveness. ***"

* * * * * * *

"* * * Some school officers *** have neither research budgets nor skilled research workers for mounting *** evaluative efforts. As education's share of tax expenditures increase, however, it is fairly certain that educational administrators will be asked to provide better information than they now possess about the cost-effectiveness of their programs, vocational or non-vocational."

HEW regional officials generally concurred with our findings and said that—particularly in the area of inaccurate data—they could have done a better monitoring job with additional staff.

The Program Officer for Reports and Statistical Data at HEW headquarters agreed that HEW and the States were having difficulty in obtaining the information necessary to adequately evaluate programs. He said that attempting to develop a management information system to adequately evaluate program effectiveness has been a slow process.

One of the problems has been convincing persons at all levels—Federal, State, and local—of the importance of such a system. He said that most educators—State and local—did not consider this information important and that they were more concerned with the techniques of teaching and curriculum development than with evaluating program effectiveness. He said that adequate systems would be implemented only when officials at all levels were convinced of the value of good management information and that efforts were continuing in this direction.

CONCLUSIONS

Improved management information systems which provide adequate and accurate information, particularly on program results, are needed if program managers are to adequately evaluate programs, identify weaknesses, and make necessary improvements. The need for such systems has been recognized by the States and HEW.

Of concern to us is that the independent development of management information systems by HEW and the various States—which seems to be the current trend—could easily result in duplication of effort without the valuable benefit gained from the comparability of data and the interchange of ideas. HEW officials should more closely coordinate their efforts with those of State and local governments in defining the information needed for an adequate management information system and should assist the States in establishing such systems.

HEW officials should also explore the possibility of using techniques, such as statistical sampling and analyses of Social Security data, to assess the effectiveness of vocational education. They should also consider (1) gathering followup information on nonvocational graduates to better assess the impact of vocational education and (2) compiling followup information over a longer period after graduation. Combining several or all of these techniques might result in better information, whil holding costs to a reasonable level. Any system, however, will be of limited usefulness if the information gathered is inaccurate and incomplete.

RECOMMENDATIONS TO THE SECRETARY OF HEALTH, EDUCATION, AND WELFARE

HEW should coordinate its efforts and those of the States in defining the information needed to adequately evaluate program results and should assist the States in the design and implementation of management information systems.

The Secretary should take action to insure that HEW and the States—in monitoring programs—verify the accuracy and completeness of reported information.

AGENCY COMMENTS AND ACTIONS

The Assistant Secretary, Comptroller, agreed with our recommendations, stating that:

"Regional staff through personal consultation with State personnel and by conducting leadership workshops for State and local administrators are taking positive steps to achieve the objectives included in the recommendations. Such action consists of conducting State program reviews and reemphasizing proper accountability throughout the entire system to improve report information."

Officials of the four States involved also agreed.

The actions promised or taken by HEW and the States should result in needed program improvements.

CHAPTER 5.—SCOPE OF REVIEW

We reviewed selected aspects of the vocational education programs in California, Michigan, Ohio, and Pennsylvania for fiscal years 1970 and 1971. These States have been consistently among the top 10 in amounts of Federal assistance received. They received $104 million, or 22 percent of the total allotted to all States, in fiscal year 1972. Our review was directed toward determining whether legislative objectives were being achieved and toward identifying major problems.

Our review concentrated on high school vocational education, because the majority of funds in all four States are spent on this level of education. California spends also a significant portion of its vocational education funds on post-secondary vocational education in 2-year community colleges, and the other three States have also undertaken programs to increase vocational training in community colleges. We included community college vocational education programs in the preliminary phase of our review, but expenditures in all four States had not reached a sufficient level to warrant including these programs in our detailed review work.

We reviewed the Vocational Education Act of 1963 and its 1968 amendments, the legislative history of these acts, and the administrative regulations and instructions for their implementation.

We also reviewed the plans of the four States to determine if the objectives of the act were included. We interviewed Federal, State, and local education officials and reviewed available records and reports to determine if these objectives were understood and to obtain information on the progress of State programs, the extent of State and local funding, and the direction of effort.

Our work was performed primarily at State departments of education and at local education agencies in three selected cities in each State—one large (over 500,000 population), one medium (100,000 to 400,000 population), and one small city (under 100,00 population). In each of the large cities, we visited three high schools, in the medium cities two high schools each, and in the small cities one high school each. Our work also included reviews and discussions at HEW headquarters and regional offices responsible for programs in the four States.

We considered recent findings and conclusions by expert evaluators of vocational education, as summarized by the Center for Vocational and Technical Education. The Center, an independent unit of Ohio State University, receives funds from HEW to be used, in part, for summarizing reports of vocational education studies by experts under contract with HEW, State and Local governments, and other public and private groups. We also reviewed the annual reports prepared by or for the National Advisory Council and the four State advisory councils.

APPENDIX I.—LEVELS OF STATE AND LOCAL EXPENDITURES FOR VOCATIONAL EDUCATION, FISCAL YEARS 1963 AND 1970 AND STATE ESTIMATES FOR 1975

[In thousands]

	1963	1970	1975	Increase 1963-75
California	$22,900	$164,100	$314,700	$291,800
Michigan	7,000	38,500	70,600	63,600
Ohio	8,400	87,400	223,100	214,700
Pennsylvania	9,200	98,700	123,400	114,200
Total	47,500	388,700	731,800	684,300

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,

Washington, D.C. June 23, 1972.

Mr. MORTON E. HENIG,
Associate Director, Manpower and Welfare Division,
U.S. General Accounting Office,
Washington, D.C.

DEAR MR. HENIG: The Secretary has asked that I reply to your letter dated April 25, which forwarded your draft report entitled "Training America's Labor Force: The Unfilled Promise of Vocational Education."

Detailed comments on the recommendations, together with the statement of actions to be taken to implement them, are set forth in the enclosure. They are the product of a review of the report by the cognizant Departmental and Office of Education regional and headquarters staff.

We appreciate the opportunity to review and comment on the report.

Sincerely yours,

JAMES B. CARDWELL,
Assistant Secretary, Comptroller.

Enclosure.

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE COMMENTS PERTINENT TO THE DRAFT REPORT TO THE CONGRESS OF THE UNITED STATES BY THE UNITED STATES GENERAL ACCOUNTING OFFICE ENTITLED "TRAINING AMERICA'S LABOR FORCE: THE UNFILED PROMISE OF VOCATIONAL EDUCATION"

A general reaction is that this is a fair and impartial report. However, the tone and accuracy of the report could be improved by changing the title of the report. The present title implies a total study of vocational education in contrast to the actual scope of the study which relates primarily to the disadvantaged. Replacing the word "Promise" with "Goal" would be much more acceptable. Also, Regional Adult, Vocational and Technical Education Director should be substituted for HEW Director (page 10). In addition, the nature of the report militates against the inclusion of positive achievements. Better balance could be achieved in the report if some positive accomplishments in vocational education during the period covered were included. For example, the report might identify the expansion of programs with reference to the number of participants as well as occupations.

GAO recommended that:

The Secretary of HEW should undertake research into the exact nature and extent of the funding and image problems attached to vocational education with toward determining what actions may be necessary to more fully achieve the objectives of the Vocational Education Act.

Department Comment

We concur with the recommendation.

The Office of Education, through its central and regional offices, will undertake research into what appears to be primarily an attitudinal matter. In addition, a research study of a positive and definite type will be mounted as soon as practicable to produce a report on vocational education graduates who have been employed for five or more years.

The Secretary of HEW should instruct regional offices to more closely monitor the use of Federal funds for special programs and services for the disadvantaged to insure that these funds are being used as intended by the Act and HEW implementing guidelines. HEW should also require the States to describe, in their State plans, the procedures they intend to employ to ensure that funds for the disadvantaged are properly used.

Department Comment

We concur with the recommendation.

One of the States studied has established stricter controls for LEA's for use of disadvantaged funds. Regional staff are emphasizing to the other States the concerns reflected in the GAO study and are expanding monitoring activities.

HEW should coordinate its efforts and those of the States in defining the information needed to adequately evaluate program results and assist the States in the design and implementation of management information systems.

The Secretary should take action to ensure that HEW and the States—in monitoring programs—verify the accuracy and completeness of reported information.

Department Comment

We concur with the recommendation.

Regional staff through personal consultation with State personnel and by conducting leadership workshops for State and local administrators are taking positive steps to achieve the objectives included in the recommendation. Such action consists of conducting State program reviews and reemphasizing proper accountability throughout the entire system to improve report information.

APPENDIX III.—PRINCIPAL OFFICIALS OF THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, RESPONSIBLE FOR THE ADMINISTRATION OF ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
Secretary of Health, Education, and Welfare:		
Elliot L. Richardson	June 1970	Present.
Robert H. Finch	January 1969	June 1970.
Assistant Secretary (Education):[1]		
James E. Allen, Jr	May 1969	June 1970.
Peter P. Muirhead (acting)	January 1969	May 1969.
Commissioner of Education:		
Sidney P. Marland, Jr	December 1970	Present.
Terrel H. Bell (acting)	June 1970	December 1970.
James E. Allen, Jr	May 1969	June 1970.
Peter P. Muirhead (acting)	January 1969	May 1969.

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[1] On March 31, 1971, an Assistant Secretary for Public Affairs was appointed to the position formerly held by the Assistant Secretary for Education

PART III

STATE ADVISORY COUNCILS ON VOCATIONAL EDUCATION: Analysis of the Third Annual Reports

INTRODUCTION

We are pleased to report that the approximately \$500 million provided vocational education by the Federal Government to the States last year has helped in achieving improvement in quality of programs and expansion of enrollments at all school levels and for all target groups, according to the reports of the State advisory councils on vocational education. However, many problems remain unresolved and many needs are still unmet in terms of our Nation's expectations from vocational education.

The source of the substantive information in this part of the National Advisory Council on Vocational Education's report is the findings, deliberations, activities, and recommendations of the State advisory councils on vocational education as contained in their third annual reports.

Each State council report was analyzed by National Council staff, including 14 specific topics considered of major significance to vocational education. Sections A, B, and C of this part contain, respectively, the current recommendations of the councils, the previous year's recommendations of the councils and notes on action taken on them by the State boards, and summary listings of the activities in which the councils engaged during the past year. The information for each of the these sections, as well as section D described below, was taken almost verbatim from the State council reports. Each section is organized alphabetically by State. Section D contains selected analyses of findings of the State councils organized by topic and alphabetically.

Persons interested in learning what any particular State council has to say about the problems of vocational education should review sections A and B before going on to the topical chapters in section E. Although there was a recommended format for the reports, many States adapted their report to meet their own requirements.

It should also be noted that much more information is contained in the State council reports than was extracted for this report. For example, some reports include studies and statistical data of prime importance to researchers interested in specific topics.

Following is a brief summary of the findings reported in section D. Recommendations for resolving many of the identified problems and issues are contained in section A and B.

Topic: *The acceptance and implementation of the career education concept by the State departments of education, the State advisory councils and the local school systems.*

The concept of career education has been accepted almost entirely by the State school systems and implementation is being attempted in a number of local schools, both with and without Federal funding. The State advisory councils have also uniformly expressed their approval, but are concerned that there is no full-fledged definition of career education, that little is being done in either preparing new or retraining present teachers and counselors in the practicum, and that admittedly inadequate vocational education moneys are being siphoned off to fund career education programs and projects. Councils are calling for elementary and secondary education funds to be allocated to career education. Unless and until this is done, they see no real commitment to the concept by Federal, State and local education officials.

Topic.—*The articulation of curricula and programs between the secondary and post-secondary schools.*

Cooperation between secondary and postsecondary school administrators, curriculum specialists and teachers in order to provide for a rational progression of subjects matter and skill development is improving.

Topic.—*Meeting the goals and objectives of the State Plan.*

Councils were unable to determine whether or not many State plan goals were being met because of lack of quantifiable objectives. On the one hand, councils were of the opinion that a number of specific goals were being met and exceeded, but on the other hand, other goals seemed too low or too unrealistic for the needs of target groups or special programs.

Topic.—*The statement of State Plan goals and objectives.*

Councils found that State plans generally do not explicitly state all goals in measurable terms. A rather common expression of concern in this matter is that the State plan is not a planning instrument but rather a compliance document for the U.S. Office of Education. Several councils reported that they are working closely with their State departments in developing meaningful and measurable goals and objectives.

Topic.—*Accessibility of vocational education at the post-secondary level.*

While the largest percentage increase in enrollment and programs in vocational education is taking place at the post-secondary level, the demand for programs at this level far outweighs available facilities, according to many councils.

Topic.—*Relevance of vocational education programs at the secondary level.*

The councils expressed concern that program offerings were quite traditional and did not reflect the labor market needs of new and developing technologies in industry, business and the professions.

Topic.—*Serving the needs of the disadvantaged and handicapped.*

Councils were concerned about the low percentage of the disadvantaged and handicapped being served by vocational education in their States. Problems ranging from lack of a valid system for identifying these target groups to lack of special programs to meet their needs were listed.

Topic.—*Job placement.*

Councils found that postsecondary institutions offered fairly well-organized job placement services for their students, but the contrary was true for secondary schools. The council's urged their State departments to encourage local education agencies to appoint special full-time job placement officers or counselors who would be responsible for placement of students in work-study and cooperative education programs while they were in school, and to assist them in obtaining jobs upon graduation.

Topic.—*Utilization of local school system and school programs advisory committees.*

During the past 2 years, a number of State councils have studied the existence and utilization of advisory committees by school systems and individual school vocational programs at the secondary and postsecondary levels. Most of the councils reporting on this matter feel that advisory committees can contribute a great deal to the success of vocational education programs, and were disappointed to find that a majority of the school programs do not have any form of advisory committee.

Topic.—*Utilization of manpower projections and other demographic data in planning for vocational and technological education.*

While some councils found that vocational educators in their States were adequately involved with manpower planning agencies, they found a pervasive problem concerning the interpretation and use of labor market data. A number of States are developing computerized systems for making projections of labor market needs related to vocational education programing and planning. While the State councils generally support such efforts, concern was expressed by some that the search for precise data is overshadowing efforts to apply the knowledge of the current data, imprecise as it is.

Topic.—*Utilization of private schools for vocational programs.*

Councils found that some State departments are not taking into account the existence and contribution of propriety trade schools in their manpower development plans. Several councils reported that their State departments are not utilizing propriety schools at all for vocational education; other councils reported wide use of these schools.

Topic.—*Funding of vocational and technical education.*

Councils expressed dissatisfaction with the formulas being used by State departments for funding local school system vocational programs because cognizance was not being taken of the extra costs involved in offering vocational education. The Michigan State Advisory council sponsored a statewide research study which determined these extra costs for both secondary and postsecondary level programs.

Councils also expressed concern with the amount of Federal and State moneys available for vocational education, pointing to the paucity of such funds as a basic reason for vocational education serving a much smaller proportion of individuals than the number who desire and need such education and training.

Topic.—*Educational and Vocational Counseling.*

Almost every State council expressed concern about the need for more counselors qualified to provide career counseling and job placement services to students. While sympathetic to the problems of funding such staff, councils were uniformly emphatic that priority be given to the improvement of vocational counseling services. The councils were particularly critical of present counselor training programs, both preservice and inservice.

Topic.—*Teacher education and training institutions.*

Those councils reporting on programs for inservice professional development of career education teachers expressed considerable dissatisfaction. However, a number of councils whose State departments were receiving Federal funds for the professional development of vocational teachers were most hopeful that considerable improvement could be expected, particularly in those instances in which the State department had appointed a full-time staff member to organize and promote teacher development programs at both the preservice and inservice levels.

A. CURRENT RECOMMENDATIONS

WHAT RECOMMENDATIONS HAVE THE STATE ADVISORY COUNCILS ON VOCATIONAL EDUCATION MADE AS A RESULT OF THEIR EVALUATION ACTIVITIES DURING THE 1971–72 SCHOOL YEAR?

ALABAMA

1. The board should clearly state in part II of the 1974 State plan the long-range goals and objectives and annual continuing and expanding activities. Objectives and activities should be stated in measurable terms for each vocational program service by program levels and target groups, and made available to local boards of education, technical institutes, and junior colleges so as to permit advance planning by the local agencies.

2. The board should include all nonreimbursable vocational and vocationally related programs by local boards of education and junior colleges in its vocational information reporting system.

3. The board should study the job bank activities of the State employment service and make the manpower demand information available to local boards of education, technical institutes, and junior colleges for local planning.

4. The board should place a hierarchial ranking based on projected moneys available for the continuing and expanding activities reflected in part II of the 1974 State plan.

5. The board should design, develop and implement by the end of the 1974 fiscal year a program cost information system for vocational education.

6. The board should design, develop and implement by the end of the 1973 fiscal year a systems approach for State level planning. The system should identify the necessary elements in the planning process and show the interrelationship and interdependencies between and among the local and State level information elements, and portray the flow of information with network target dates.

7. The State board should establish by the end of the 1974 fiscal year, State level performance objectives for vocational programs and determine to what extent the local agencies are meeting thse objectives. The board should also provide annually to each local program administrator a comparison analysis of the local agency's a performance with other agencies in the area and state as a whole.

8. The board should provide the necessary resources to collect and/or develop, package and disseminate curriculum guidelines and other related instructional media for elementary school occupational awareness and orientation programs.

9. The board should intensify and expand its efforts to seek additional vocational education moneys and develop a State plan which encourages local boards of education, vocational technical institutes,

and junior colleges to provide a balanced program in vocational education.

10. The board should develop an annual local vocational program application format which will permit local educational agencies to describe programs, services, and activities.

11. The board should establish and distribute to local boards of education, technical institutes, and junior colleges by the end of the 1974 fiscal year minimum and maximum enrollment standards for vocational programs. These standards should be based on a student-teacher ratio and facility utilization criterion.

12. The board should adopt a resolution recognizing vocational student organizations as an integral, functional part of the vocational education curriculum.

13. The board should establish certification requirements and encourage institutions of higher education to develop undergraduate teacher education programs for prevocational teachers.

14. The board should encourage the development of vocational programs for females with emphasis on preparation for dual roles, that is, direct attention to preparation for marriage and work.

15. The board should establish during the 1973 fiscal year a functional task force consisting of vocational educators and State employment service personnel to study the manpower demand and supply functions under the cooperative agreement.

16. The board should intensify and expand its effort in seeking and interfacing of annual State and local plans in education, vocational education, manpower development, social services, and economic development.

17. The board should adopt a resolution indicating that vocational courses, including specialized trade and technical, be open equally to males and females. It should be recognized that merely removing artificial enrollment barriers will not suffice. It will be necessary to enlighten females and parents on the wide range of career opportunities now opening to women.

18. The board should develop guidelines and provide consultative service to local boards of education for the effective use of advisory councils on vocational education.

19. The board should require local educational agencies to appoint local advisory councils on vocational education and program advisory committees.

20. The board should provide the necessary resources to collect and/or develop, package, and disseminate curriculum guidelines for planning and implementing competency based instructional systems in vocational education programs.

21. The board should adopt a resolution encouraging intersystem and interinstitutional cooperation so that resources already available can be used effectively and efficiently to provide vocational education services without regard to geographical jurisdiction.

22. The board should design, develop and implement by the end of the 1974 fiscal year a comprehensive vocational student followup system. The system should include previous and present employment patterns, curriculum adequacy information, job satisfaction information and job satisfactoriness information from employers.

23. The board should design and implement by the end of the 1973 fiscal year a program designed to assist local boards of education, vocational technical institutes and junior colleges with the placement of vocational program students who leave programs by graduation or otherwise.

24. The board should design and implement by the end of the 1974 fiscal year a vocational program "terminee bank" and a cooperative statewide placement service with the State Employment Service.

25. The board should develop job description guidelines, personnel qualifications, and program conditions necessary for reimbursable local level vocational administrators, supervisors and counselors.

26. The board should develop a position statement on the role of a guidance counselor and the type of services to be provided by the counselor to the students served.

27. The board should explore more ways to institute new approaches geared specifically toward vocational guidance in counselor education programs at State colleges and universities.

28. The board should make grants and contracts from research moneys to all appropriate educational agencies on both a solicited and nonsolicited basis in response to predescribed project specifications, and research contracts to profitmaking organizations and agencies should be in response to proposals from several potential contractors.

29. The board should establish certification requirements and encourage institutions of higher education to develop teacher education programs for general cooperative education coordinators.

30. The board should make grants and contracts from exemplary moneys on both a solicited and nonsolicited basis in response to predescribed project specifications and that proposal solicitation be forwarded to all local educational agencies in the State.

ALASKA

1. It is strongly suggested that vocational education goals and objectives be clearly formulated and articulated at the State and the local school district levels, and that definitive guidelines be developed in order to insure achievement of stated goals and objectives.

1. It would appear advisable for the State division of vocational education to undertake a stronger role in the planning, development and follw-up of vocational education programs at the individual school district level. The division has so far maintained a staff role relationship with the school districts within the State. It is apparent that in order to fully develop vocational education to a point where it can be truly recognized as viable, a central coordinating force must exercise, especially at the outset, a more extensive degree of leadership than the division has been able to exercise. It is therefore our recommendation that the division be placed in a position of more effectively monitoring vocational education efforts throughout the entire State. This authority should extend beyond the secondary level into post-secondary vocational education programs at the community college level. Along with this monitoring authority, the division

should also be held responsible for the progress, or lack thereof, of vocational education in the State of Alaska.

3. Coordinated efforts should be made to institute an effective follow-up system on high school graduates in order to objectively determine the benefit derived by each of the students from exposure to vocational training at the high school level. This is an effort that, in the long run, will yield more benefit than any other recommendation that could be made at this time, since it will enable program administrators to effectively determine which of the programs are the most viable and will allow them to concentrate their resources on those programs which yield the highest results.

4. It is strongly suggested that coordinated efforts relative to program and offering development between school districts and correspondent community colleges be further enhanced in order to provide upward progression in the area of vocational education in those localities where such facilities are available.

5. It is suggested that specialized vocational counseling be emphasized at the junior high and the senior high school levels in order to provide counseting opportunities to the students who choose not to pursue an academic career.

6. A definite attempt should be made to more closely integrate vocational and special education efforts in order to provide physically handicapped children with the opportunity to develop a viable skill which will enable them to gainfully enter the job stream at a future date.

7. Serious consideration should be devoted to the re-struturing of the existing foundation support formula in order to eliminate or minimize the inherent discrepancies which exist in the present formula. Although it is not our intent to indicate that all or most vocational education problems in medium sized and large districts can be solved by making additional resources available to them, it is evident that the existing foundation support formula does not allow these districts the equal opportunity which is afforded to the smaller districts.

ARIZONA

1. The State Board of Education should develop for the entire State of Arizona a comprehensive educational plan. The comprehensive State plan should include educational managements, budget funds accountability to be established at the local school district level, the existing compliance document necessary for Federal funding, and should take into consideration the functional planning efforts presently being undertaken by the established six planning districts in Arizona in the fields of economics, health, and manpower.

2. The State Board of Education should develop a system so that a full-time career education planning coordinator will serve in each of the six planning districts of the State. The coordinators will integrate total education into career education by systematic, comprehensive planning.

3. The State Board of Education should request from the Department of Health, Education, and Welfare, Office of Education, that all federally funded educational programs follow the procedures

outlined under the Office of Management and Budget, circular A-95, in presenting all programs to the State clearinghouse prior to funding consideration.

4. In the development of the fiscal year 1974 budget for vocational education a reasonable amount of risk-capital should be earmarked for the development of skill education in areas of new industrial growth, a practice that has been eminently successful in many other areas of the country.

5. The State Board of Education should develop closer communications with the State board for community colleges in order to expand the career education concept into the post-secondary institutions and to allow more coordination between secondary and post-secondary career education programs.

6. The cooperative education funding within the State fiscal year 1973 plan should be expanded because of the growing need for work experience programs and on-the-job training.

7. The full funding of the National Vocational Education Act of 1968 and provisions for the establishment of prevocational educational programs in grades 7 to 14 should be supported.

8. The professional staff development concept as outlined in the State plan should be supported; during the course of the next year the training functions should be monitored and evaluated; and a report of the results should be made to the State advisory council.

9. The State Board of Education should review its organizational chart in the light that career education and education are synonymous; the board should consider creating a position of associate superintendent for career education and retaining a position of deputy associate superintendent for vocational education.

10. The preparation of teachers and counselors for career education should be reexamined, giving consideration to a requirement for actual work experience outside the field of education.

11. The system of evaluating vocational education by the State advisory council and the system of making a descriptive report of vocational education for the division of vocational education should be reorganized so that appropriate information is available when it is needed. Moreover, systematic evaluation of vocational education should be maintained throughout the year.

ARKANSAS

It is the opinion of this council that it is essential that Arkansas develop a comprehensive educational system which meets the needs of all students, and insures that no student leave the system without a salable skill. Furthermore, that no student graduate from high school ill-prepared to either college, a technical institute, or employment.

To implement this concept, the council makes the following recommendations to the State Board for Vocational Education:

1. That the board request an additional $2.5 million in State moneys for the first year of the 1973-1975 biennium and $3 million for the second year for secondary vocational education programs.

2. That programs of occupational awareness be developed and financed into grades 1 through 6, throughout the public school system,

by providing adequate instructional materials and inservice training programs for all elementary teachers. The responsibility for implementation should rest with all divisions of the department of education and not solely within the division of vocational education.

3. That much greater use be made of the mobile training units to bring "hands on" vocational orientation and exploratory experiences to all students in the middle grades (7–10).

4. That all State area schools offer two 3-hour blocks of instruction to secondary students (11 and 12 grades), during the day, to bring actual skill training opportunities to secondary students now denied such training. Local school districts should pay tuition for students on the same basis as for secondary area schools.

5. That school districts be encouraged to implement the provisions of act 323 of 1969, or to establish comprehensive high schools, by the board providing assistance with construction and program support moneys.

6. That the board take immediate steps to lower the counselor-pupil ratio in our secondary schools and encourage the placement of counselors in elementary schools. A significant expansion of inservice training of school counselors in occupational counseling is also needed. As a first step in improving occupational counseling, the board should:

a. Seek to employ individuals with rich backgrounds of experience in business, industry, and labor (with or without teaching experience) as counselors in order to introduce occupational counseling into the system immediately.

b. Require that all future counselors have work experience outside the educational system before they are certified, and that they periodically update their work experience through summer employment in private industry.

7. That the board select specific State colleges or universities as target schools and through funding grants and technical assistance (including assistance from the U.S. Office of Education) initiate improved and expanded teacher training programs in all occupational clusters. In each of its evaluation reports the council has recommended that vocational teacher training programs in our State colleges and universities be improved and expanded. To date little or no progress had been made.

8. We repeat the recommendation contained in our 1971 evaluation report that the board develop a more flexible salary schedule, with significantly higher authorized maximums in technical subjects, for presentation to the 1973 General Assembly. As a first step, the board should request funding for the increased maximums authorized by the 1971 General Assembly so that a more realistic salary schedule can be initiated at the Southwest Technical Institute.

To carry out the recommendations of this report will require aggressive leadership from the State Board for Vocational Education and the State Department of Education to initiate a comprehensive planning effort, independent of the U.S. Office of Education's required reports, that will result in a plan which will:

a. Provide a long-range strategy for developing a total career education system in Arkansas, including the development of procedures to insure continuous planning and evaluation.

b. Establish specific areas of responsibility, and thus accountability, for each element of the plan within the Department of Education.

c. Provide a basis for actively soliciting additional funds for program implementation from the U.S. Office of Education and the U.S. Department of Labor.

CALIFORNIA

California State Plan for Vocational Education

The State Board of Education and Board of Governors of the Community Colleges should complete their vocational education delivery system by establishing statewide priorities, goals and objectives, and the system should provide for continuous review, updating and evaluation which can serve as a model for district plans. Furthermore, the council recommends that the State's priorities, goals, and objectives be established by a task force made up of representatives from all levels of vocational education, various agencies serving it (both public and private), lay persons and students.

A clear definition between the concept of career education and vocational education should be articulated into all State planning relative to education and manpower development.

Funding for the development of career education projects should be drawn from all educational sources rather than primarily from vocational education funds.

An expression of student needs and attitudes should be obtained by the State Board of Education and Board of Governors of the community colleges as a critical input to program planning and the preparation of the California State plan for vocational education.

Vocational Education Reporting System

Information provided by local school districts and area planning committees regarding district and master plans should be submitted in time to be incorporated into the State plan. (Area planning committees are mandated to provide master plans for incorporation into the State plan.)

Information gathered and reported by the State department of education should be more comprehensive in order to better describe and evaluate the State's vocational education program .

Data on the occupational training provided in private occupational education schools and other institutions, such as the military, should be collected and maintained on a continuing basis and included in the State plan.

Disadvantaged and Handicapped

All VEA proposals submitted for the disadvantaged should show written evidence that there has been input from the community or region where they will be implemented, including other federally funded programs in order to avoid unnecessary duplication of effort, and sufficient funds should be allocated to assure attainment of the proposals' major program objectives.

A semiannual report on the status of each disadvantaged and handicapped or research demonstration project should be published and appropriately distributed to districts/agencies indicating the progress each has made toward program objectives and/or tentative research findings.

Jointly the council, the staff of the State board of education and board of governors of the community colleges should hold a series of workshops to improve communications and disseminate information regarding vocational and career education programs for the disadvantaged.

Appropriate research in the area of the disadvantaged should be undertaken to determine whether program efforts are having a measurable impact in helping the disadvantaged.

Vocational Area Planning

The council should be assigned responsibility and staff support to provide central coordination of the area planning committees as provided for under education code article 10.4, section 6268.

Comprehensive Manpower Information

The State board of education and board of governors of the community colleges should assist and support HRD in its efforts to secure funds from the Department of Labor in order to establish a viable manpower data system and to assist HRD in its effort to establish the development and implementation of a manpower data system as a priority item in its program of work.

The council should assist the Joint Committee on Vocational Education and the joint occupational preparation task force prepare a position statement supporting the specific recommendations made by the Governor's manpower policy task force concerning the need for a comprehensive economic and manpower data center and forward it to the State board of education, board of governors of the community colleges and HRD.

In conclusion, the California Advisory Council on Vocational Education and Technical Training believes the State's vocational education program to be one of the more effective programs in the Nation. The council is also supportive of the California vocational education delivery system and recognizes its many strengths.

In order to assist the council in becoming more effective in making its evaluation of the vocational education system and its various components, the council must become more autonomous (as provided in Public Law 90–576) and apart from rather than a part of the system it must evaluate. Public Law 90–576 requires that State advisory councils be totally independent from State boards of education so that they can be objective in their evaluations and recommendations.

Therefore, the council presents two final recommendations:

> That the council administrative staff by legislation be made exempt from civil service to preclude conflicts of interest in making evaluations of programs.
>
> That a portion of part C funding for research activities be set aside for use by the advisory council for its research and evaluation projects.

COLORADO

1. The State board for community colleges and occupational education, in cooperation with the Colorado Department of Education,

develop and implement a State plan for local implementation of career education in Colorado. In our opinion, there is an urgency in developing and implementing the career education concept in Colorado.

2. A system to account for the number of persons trained for employment in private schools and by business and industry should be developed.

3. Action should be taken on improving the quantity of guidance and counseling in Colorado schools. Our recommendation in the 1971 report relative to counselor certification should be an appropriate starting point.

4. Action should be taken to add emphasis to and expand the adult vocational offering in Colorado.

CONNECTICUT

1. We recommend that the department of education move immediately to a method of prepayment rather than reimbursement to fund occupational programs.

2. Given our finding that 4 out of 10 of the priority towns had no programs for the handicapped, we recommend the rigid implementation of the activity required within part 1 of the State plan that the department of education establish a list of communities by priority of need and establish a policy of working closely with a feasible number of the priority list communities to develop programs appropriate to need by providing maximum technical assistance leadership and funding to those communities.

3. We recommend that the board of education explore through the management section of the State of Connecticut Budget Division, the technical assistance facilities of the U.S. Office of Education, and such other resources as may be appropriate, how best its various activities can be reorganized so that the department is better able to meet the needs of the handicapped and disadvantaged.

4. We recommend that the department of education utilize section 3.25–2 of the State plan with greater flexibility than heretofore so that school districts which cannot afford a local share and therefore will not submit a program which may be particularly needed, will be encouraged to utilize the Federal funds established to meet the students needs.

Section 3.25–2 reads as follows:

> *Reasonable Tax Effort.*—No local education agency with taxing authority which is making a reasonable tax effort will be denied funds for the establishment of new vocational education programs solely because it ***is unable to pay the non-Federal share of the cost of such programs.***[1]
>
> Taxable wealth and taxation efforts are essential aspects of a community's ability or inability to cope with its needs. A tax effort index will be obtained by dividing the town's grand levy by the equalized grand list. The data necessary for this will be available from sources such as the State department of education, the Connecticut Expenditures Council, and the Connecticut Education Association and will be revised annually.")

Further, the Council suggests the board use the broadest possible interpretation so that up to 100 percent funding could be provided to those cities which are high on the priority list descrebed under recommendation 2 above.

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[1] Emphasis added.

5. We recommend that the State board insure that local school district officials understand clearly that the funds available under Public Law 90–576 go directly into a special separate account and may be used only for the vocational program for which they were approved.

6. In order that no handicapped citizen of the State be overlooked, we recommend that the division of vocational education create a list of the handicapped by name, handicap and age of (initially) children grades 4 through 12.

7. We recommend that these names be arranged by school district on the need priority list recommended under (2) above.

8. We recommend that the board of education, recognizing that many handicapped citizens are in public or private institutions, take immediate steps to identify their numbers, age, handicap, and locations.

9. We recommend that the department recognize that the U.S. Office of Education, Bureau of Vocational and Technical Education, requires divisions of vocational education to provide funding to meet the needs of individual handicapped students in local school districts. Also that the meeting of such individual need shall have equal priority for funding with programs involving groups of the handicapped within school districts. Therefore, working with the division of special education and with local districts, and with private rehabilitation agencies in relation to the lists recommended in (6) and (8) above, the department should actively seek to develop individualized programs and fund them.

10. We recommend that whenever a mutually satisfactory program to serve the handicapped requires transfer of funds to another State agency or institution, the prepayment method of funding be used. Thus, the State Department of Personnel will be in a position to create the necessary new positions in the agency without delay.

11. We recommend that in the use of section 102(b) funds, the department should treat the department of correction in the same manner as any other school district. Namely, that these funds shall be used to demonstrate program effectiveness over a short time period, and that alternative sources of funding be developed so as to free the section 102(b) funds for reallocation on a 100 percent funding basis in other school districts.

12. We strongly recommend that the board commit increased funds to program evaluation both by State personnel and more particularly by outside contract evaluation. This becomes imperative since at our meeting of November 2d, the board's staff felt that not even 20 percent of programs can be evaluated given the present policies and staffing. It is only through such evaluation that information on successful programs can be disseminated and that a firm foundation for establishing a priority of program type and funding be effected.

DELAWARE

We recommend that the Governor of Delaware and the task force on education appointed by him regenerate enthusiasm for the concepts inherent in the earlier recommendation, and establish at the earliest date, the council on education in Delaware to meet the broader needs for which it was originally intended and, also, to meet the requirements for participation in the Education Amendments Act of 1972.

Under the same reasoning, a State advisory council on career education, with perhaps subcouncils with certain overlaps in membership to serve components of occupational, postsecondary and vocational education should be established to serve the Strike commission, the state agency and the various policymaking State boards.

Proliferation of these advisory bodies would be a mistake which would tend to defeat the purposes of specific input, coordination of evaluation activities and practical, workable advice.

In this regard, Delaware is microcosmic enough, as stated often, to offer a laboratory and a model for the Nation while, at the same time, helping herself.

We recommend that the Delaware General Assembly reconsider each of the above recommendations for action in the coming year. It is essential that the timetable for full availability of vocational programs be continued as a priority.

It is further recommended that each local district authorized to construct career education centers be required to employ, at the director or assistant superintendent level, an individual with qualifications, certification and experience equal to those required of the State director of vocational education, and that the general assembly provide the support, above and beyond current unit allocations for administrators, for this purpose.

A more concentrated effort upon the development of programs for persons with special needs is of particular necessity in Delaware and, as such, should be considered a priority.

We recommend that the State board of education, the State superintendent of public instruction and the department of public instruction continue to consider career education and its primary component, vocational education, as the No. 1 priority in the State; that they exercise their positions of leadership to influence change, where change is necessary, innovation, when traditional practices do not produce desired results, and additional support, which is always necessary; that they reinforce their efforts to secure State and Federal funds, local acceptance and support, and professional, business, and public enthusiasm to make Delaware the model state in career education; that they communicate their positions, goals, and objectives, particularly the unpopular ones, maintain their courage in the face of resistance to necessary adjustments, and answer their critics with programs of positive action.

Representatives from all components of the community were involved. In addition to close consultation with the advisory council members and staff, the State planning department, the department of labor, the State department of administrative services and private consultants specializing in manpower projections were involved. There were numerous other organizations and individuals who participated in the development of the State plan. The general public had three opportunities to react to the document.

The result is a State plan for vocational education in Delaware that is based on statewide goals and objectives, is understandable, both to those it will affect and those who will effect it, and is practical, in terms of implementation in consideration of funding realities.

We recommend that the department of public instruction undertake activity to communicate a further refined State plan for vocational education to the local districts and provide the assistance necessary to upgrade all local plans, which form an excellent basis for further coordination of efforts; that they also communicate the priority components of the long-range goals to the State board of education and thereafter to the State legislature and the executive branch in Delaware; that the local school districts adopt and support such priorities so that they may become positive legislative action, if necessary, and secure adequate financial underwriting; that the State administration, the general assembly and the public accept the refined plan as a mandate which will assist in making career education a reality rather than a concept.

We recommend that the institutions of higher education in Delaware start all over again; that they realize that they have an important function to serve that goes beyond administrative recognition, faculty senates and foundation support; that they evaluate their present role and responsibilities in the community; that they form a strategy to meet that role and those responsibilities in the form of a short-range and long-range plan for career teacher education; and that the State of Delaware, including the executive branch, the general assembly, the department of public instruction, private foundations as well as our Federal partners, withhold all categorical assistance for occupational, vocational, and career education to these institutions until such a plan, a complete plan, which incorporates State goals and objectives, is acceptable to the agencies involved.

We recommend that the department of public instruction design a delivery system for State and Federal funds from their sources to the local school districts that will allow more adequate lead time in planning, organizing, and implementing new programs; that the Department of Public Instruction include, if necessary, such a delivery system in its legislative priorities; that the General Assembly consider acceleration in the increase of Division II funding, which will automatically provide more support for the operation of occupational and vocational programs; that the State board of education direct money saved as a result of adoption of recommendations in section V of this report to an intensive program of inservice training in career education for all teachers in the State to be conducted by Department of Public Instruction staff; that the General Assembly reconsider also the adoption of a realistic program for the repair, retirement and replacement of worn and obsolete instructional equipment; that all parties concerned exert greater than token effort to make vocational youth organizations truly integral to all programs of instruction in career education.

DISTRICT OF COLUMBIA

Finding.—A close examination of the structure and progress of staffing of the Department of Career Development programs has revealed that the assistant superintendent was hired at the beginning of fiscal year 1972, and does not yet have his administrative and supervisory staff complete. Fifteen freezes of various kinds occurred during the fiscal year which prevented the full complement of staff from taking place and caused delay in many aspects of the program.

Recommendation.—The Council recommends that all personnel openings in this department be filled without further delay; and that the entire personnel procedure of the D.C. public schools be overhauled for speedier, more efficient management.

Findings.—The Council believes that the Board of Education and administration should proceed with utmost speed to complete the careful design of new and more flexible guidelines for the certification of teachers in career development, with salary scales which can compete with those in the private sector. The Council finds that it is very difficult to recruit competent personnel from outside the District to man responsible positions, such as vocational high school principal or assistant principal, owing to very low salaries offered in the District in contrast to the very high cost of living. By way of contrast—in Chicago, for example—an assistant principal in a vocational high school earns as much as an Assistant Superintendent in the D.C. Public Schools.

Recommendation.—The Council recommends that the salary scales for principals, etcetera, of vocational high schools be suitable raised so as to attract competent personnel on a national basis.

Finding.—The Council has been deeply concerned with funding both on the State and Federal levels, feeling that this is the primary indicator of the lack of commitment at both levels. It must be stated here that the Council has had a good deal of difficulty in gathering information that would be essential to review program expenditures. An approach to the assistant superintendent for career development programs brought information just completed from fiscal year 1971, with no promise of more updated information on expenditures from the District of Columbia Budget Office or any other source.

Recommendation.—The Council recommends that the present budget procedures be reviewed for the purpose of making the system more effective in supplying necessary information. The Council further recommends that every effort be made to develop a reporting procedure that all can use and understand: the Congress, the District, the Board of Education, the Council, the community.

Finding.—The Council questions the ability of program directors at the local level to make sound plans for the year without knowledge of their budget allotments.

Recommendation.—The Council recommends that the accounting system receive serious review and adjustments. In its opinion, the effectiveness of the program director is impaired by the lack of such information, since it cannot help but limit his administrative judgments.

Finding.—The Council examined budgets for the past 2 years and found several indicators which might serve as factors in the quality of programs funded. While demand for the programs was going up, resources were going down. It has been noted that the level of Federal moneys from fiscal year 1971 to fiscal year 1972, has been reduced. For the third year in a row, the total budget from State and Federal sources for career development programs appeared to remain substantially at the same level, and promises little expansion for fiscal year 1973. At the same time, costs are increasing in terms of mandatory salary raises, supplies and equipment.

Recommendation.—The Council recommends support of the findings of the Nelson Commission which lead toward an increase in reprograming authority for District officials as a start toward delegating greater freedom to make detailed budgetary decisions. Added flexibility in reprograming as well as authority to negotiate its own contracts for services with independent schools and agencies would enable the Board of Education ~~To~~ use otherwise unused funds for pressing needs without having to have formal approval by the Mayor and Congress. At this point the Board cannot even decide to hire two aides instead of one teacher.

Finding.—The Council finds that the career development shift has brought with it tremendous responsibility, but did not carry with it a corresponding increase in staff or funds commensurate with the gigantic leap in responsibilities.

Recommendation.—The Council recommends that more elementary and secondary level funds be designated for career development planning and implementation and that for funding purposes career development be considered synonymous with total curriculum development for elementary and secondary schools.

Finding.—The Council commends the Department of Career Development for moving toward a solution for assuring more prompt issuance of supplies for its programs.

The Council finds that the District budget for supplies for instruction in the vocational high schools is less than the budget for supplies for instruction for the academic high schools despite the fact that vocational supplies are more expensive and more speedily consumed.

Recommendation—The Council recommends a significant increase in the District budget for meeting instructional supply needs of the vocational high schools.

Finding—The Council finds that a strengthened Adult Education program is necessary to provide instructional occupational education for those youths and adults who need upgrading in an occupation or who need to acquire new skills. The Council feels that this is in keeping with the career development concept which deals with occupational education K through life.

The Council is deeply concerned about two potential threats to adult education: (1) The possible closing of the Adult Education Demonstration Center at 13th and K Streets NW., due to the termination of its model cities grant in December 1972—the Center is still open due to receipt of some additional funds, but the concern remains; and (2) the Superintendent's implication that if the total D.C. schools budget is not met by the District of Columbia Government, adult education programs will be the first to be cut.

Recommendation—The Council recommends that every effort be made to avoid weakening the adult education programs by at least maintaining the status quo through the continuous flow of funds to existing quality programs; and by eliminating programs poorly attended or outmoded, and the establishment of new, relevant programs with existing funds.

Finding—The MDTA Skills Center is housed in an inadequate facility and has a number of problems in the areas of supplies and equipment acquisition, repairs and renovations, removal of rubbish and debris, and personnel appointments.

Recommendation—The Council recommends:

(*a*) That an adequate facility be made available so that MDTA can more effectively carry out its responsibilities of providing quailty skill training for the residents of the District of Columbia;

(*b*) That greater emphasis be placed on manpower programs in the acquisition of supplies and equipment because of the "short-fused" nature of the program;

(*c*) That more emphasis be placed on repairs, renovations, and installations. Many requests for repairs procurement have been completely ignored;

(*d*) That service for removal of rubbish and debris be made available. The lack of this service has created a health hazard and warnings have been issued by the Health Department; and

(*e*) That the Administration respond more readily on personnel appointments, establishment of positions, etc. upon request. Some positions in the skills center budget were funded for 2 consecutive years before they were established or filled.

Finding—The Council finds that career counseling and placement services in the academic high schools for students below the senior level are not presently available.

Recommendation—The Council recommends that carrer counselors be placed in the academic schools also at the 10th and 11th grade levels in order to meet the needs of the students approaching their senior year of high school.

Finding—The Council finds that there exists a lack of coordination between interdisciplinary cooperative education programs and the careers counseling placement until although these two programs are closely related and sees the need for coordinated planning and effort of these units together, in building closer relationships with business, government, and industry.

Recommendation—The Council recommends that coordination between interdisciplinary cooperative education programs and career counseling and placement unit be developed as quickly as possible, thereby incorporating a team effort between program staff, teachers, business, industry, and government agencies such as the Mini-Center of the District of Columbia Manpower Administration.

Finding—The Council feels that the development and carrying out of pilot projects in the Webb and Young Elementary Schools, and Browne and Evans Jnior High School reflect creditably on the Department of Instruction, Department of Career Development Programs, the Project Director and staff. We have noted the in-depth evaluation study of these programs entitled "A Year-End Evaluation of an Exemplary Career Development Program in Washington, D.C.", June 1972 by the National Center for Occupational Education, North Carolina State University, Raleigh, N.C.

Recommendation—The Council is in agreement with and supports those needs delineated by the study as follows:

1. Career development needs to be specifically defined and clearly bounded.

2. Strategies for expansion into the total system are not clearly delineated. Planning is not sufficiently detailed in this area, particularly with regard to costs, long range inservice education and implementation strategies.

3. Articulation at all levels and among all components needs to be strengthened. One person should have overall responsibility for K–12 programs.

4. Curriculum activities are in many cases questionably related to career development. Although of increased relevance, they are often restatements of traditional materials.

Finding—The Council has noted the iintiation of a variety of career orientation and work experience programs at the junior and senior high school levels, and believes that this trend may be profitably followed, and opportunities for student participation expanded.

Recommendation—The Council recommends increased participation in and utilization of career exposure programs such as widening horizons and project women by the Board of Education and School Administration, plus expanded use of work experience programs with pay, such as civil service stay-in-school and junior fellowship, and the junior achievement program.

Finding—Serious concern is occasioned by the freeze of fiscal year 1973 funds which have caused worthwhile work experience programs such as the under-sixteen program to reach a stalemate, and cutback in Neighborhood Youth Corps in-school programs to a minimum.

Recommendation—The Council recommends that the Board of Education explore the possibility of restoring and expanding programs which provide paid work opportunities for youth who need money to stay in school.

Finding—The Council finds that with the career development thrust, some academic students are being placed on jobs or in job training slots without adequate preliminary skill preparation or training.

Recommendation—The Council recommends that the potential employer be informed by the school administration as to the degree of training a youth has received, his strengths and weaknesses, to enable the employer to plan appropriate training for the student.

Finding—The Council is aware of the lack of mechanism for evaluation and followup procedures of the programs related to career development.

Recommendation—The Council recommends that the Board of Education take a close look at evaluation and followup procedures of all programs related to career development, and that new methods be explored and new techniques developed within the capability of the Department of Career Development Programs and the school system.

Finding—At a special joint meeting with the D.C. Board of Education on April 10, 1972, the Council formally submitted to the Board a list recommendations for (1) the use of the former National Geographic Building, and (2) the implementation of the career development program. These recommendations have only recently begun to receive attention from the Board of Education in the middle of fiscal year 1973.

Recommendation—Therefore, the Council recommends that the Board of Education give prompt consideration, reaction and response to matters brought to its attention by the Council, particularly in relation to capital funds and/or expenditures for improvements for career development programs.

Finding—The Council sees need for establishment of closer communication on capital improvement plans between the Board, the Administration and the Council. There is concern about the reporting system on capital improvements for career development as well as the severe delay in use of capital funds.

Recommendation—The Council recommends that formal reports on capital improvements for career development be made annually and clearly, and that the Board review reporting procedures presently in use with the objective of establishing readily retrievable systems of information, especially in reference to Federal expenditures.

Finding—The Council is aware of the board's request to the Department of General Services for a monthly report by schools on capital outlay money.

Recommendation—The Council recommends that this practice be specifically applied to the vocational high schools.

Finding—The Council has observed the deplorable state of industrial arts shops in the junior high schools. For the first time, funds for industrial arts have been included under the new Education Amendments of 1972, but to date the commissioner of education has given no guidelines for implementation.

Recommendation—

(*a*) The Council recommends that the commissioner of education develop and distribute appropriate guidelines on inclusion of industrial arts programs and grants as speedily as possible.

(*b*) The Council recommends that industrial arts equipment and plant facilities at the junior high school level be upgraded immediately.

(*c*) The Council further recommends that the industrial arts curriculum be tied to the overall career development concept in such a way as to relate to those clusters which are truly relevant.

Finding—The council finds that the department of career development does not have ample staff development funds necessary for training of all school personnel (teachers, principals, etc.) in the career development concept. The Council believes that the department of career development programs has made a sincere effort in the area of staff development. A variety of activities continuing into fiscal year 1973 are indicative of this.

Recommendations—

(*a*) The Council recommends that staff development funds at the elementary and secondary school levels be designated for career development orientation and training in order to move speedily toward the total implementation of this concept at these levels.

(*b*) The Council recommends that the department of career development programs, through staff development, embark at once upon the expansion of knowledge and awareness of the career development concept to principals, counselors and classroom teachers, and through additional public information, to policymakers, administrators, Federal and State funding sources and the community at large.

Finding—At the beginning of fiscal year 1973, the Council participated in several activities with the department of career development programs, including planning meetings, special briefing sessions, two joint workshops, etcetera. Greater participation of career development programs staff in council meeting has also enhanced better communications, working relationships, and exchange of ideas. As a result of a joint meeting on October 19, 1972, of council members and career development administrators and supervisors, a body of recommendations was developed, and subsequently adopted by the Council.

During fiscal year 1972, there was concern expressed in reference to the use of the advisory council as intended under the legislation which created State advisory councils on vocational education, such as under-utilization of council expertise in reviewing proposals, studies and other vital documents having specifiically to do with vocational and/or career education programs or funds. For example, during fiscal year 1971, a contract was let for a major study of vocational education by the (at that time) department of vocational education with no consultation with or information to the advisory council. The results of that study were of questionable value. It was felt that more involvement of the council prior to board of education commitment of funds for such undertakings might possibly result in more fruitful use of funds.

Recommendation—The Council recommends that any proposal, study, or similar vital document involving vocational or career education (either capital improvement or programmatic) under the jurisdiction or auspices of the department of career development programs be fully discussed with the council before the board of education commits itself to approval.

Finding—The Council is desirous of receiving, on a continuing basis, copies of regular reports from the department of career development programs, such as those made to the superintendent, and information on special events in the community related to career development such as those recently conducted by the Urban League and the board of trade career advisory council.

Recommendation—

(*a*) The Council recommends that information such as described above be communicated as a matter of regular practice to the advisory council office, so that the council's knowledge and understanding of department efforts may be enhanced, and participation in community events related to career development may be increased.

(*b*) That Council recommendations relative to career development and vocational education programs made to the board of education and school administration receive prompt attention and response.

Finding—The Council has observed the commendable efforts of the department of career development programs with business, government, and unions in order to stimulate a real exchange between these agencies and the staff, faculty, students, and community. Broad patterns of cooperation have been established between the D.C. public schools and businesses such as IBM, Shell Oil, government agencies such as Goddard Space Flight Center, the Civil Service Commission, and organizations such as the Board of Trade and the Urban League. Programs which illustrate the achievement of closer ties between the government and business community and the schools have recently been introduced at the junior high school level, such as widening horizons and project women. Representatives of the schools have been invited to participate in meetings at Federal City College, the Chamber of Commerce, and Junior Chamber of Commerce, Interagency Staff Committee for Children and Youth, Project Open, Kiwanis, Urban League and many, many others. A close relationship with the Career Advisory Committee of the Board of Trade has resulted in the development of a special document for use of career counseling and placement.

Recommendation—

(*a*) The Council recommends that interesting and informative sessions such as the one cosponsored by the department of career development programs and project Opin in January 1972, which have created a basic pattern for idea exchange, be continued.

(*b*) The Council further recommends that all channels of communication be kept open and expanded so that the government, industrial and business community can become more and more a part of the educational system of the District.

Finding—The Council is most concerned about the status of vocational youth organizations in the D.C. schools. These organizations, which have unlimited potential for students as tomorrow's leaders of business and industry, are slowly fading away. One indication of the lack of priority and importance that the administration has given vocational youth organizations was evidence in the cancellation of a national conference of future business leaders of America 3 days before it was scheduled to begin, because of regulations preventing use of substitutes for those teachers planning to participate.

Recommendation—The Council recommends that immediate attention be given by the board of education and the school administration to the revitalization of vocational youth organizations. The Council endorses and supports the seventh report of the national advisory council on vocational education devoted exclusively to vocational youth organizations, which encourages appropriations of more funds by Congress, the development of guidelines by the office of education, and implementation of vocational youth organizations by school administration.

FLORIDA

I. It is recommended that part I of the State plan be reviewed in order to increase compliance with Federal law, and regulations promulgated thereunder.

a. The technical legal deficiencies identified in this evaluation should be corrected.

b. The areas of ambiguity identified in this evaluation should be reviewed and modified in accordance with Federal regulations and board policy.

II. It is recommended that part I of the plan be revised through the exercise of appropriate discretionary authority in order to increase its usefulness as a planning document.

a. Each section of the plan should be reviewed for the possible inclusion of guidelines in addition to the minimum required for compliance.

b. Special attention should be given to the revision of the following key sections:

1. Sections 1.10C and 1.10D should be revised in order to insure that the procedure for identification of areas of concentration of specific populations (i.e., high unemployment, economically depressed, and school dropouts) are correctly established.

2. Section 3.15, vocational need of groups to be served, should be revised in order to insure that appropriate consideration is given to the specific population groups.

3. Section 3.26–1 should be revised in order to insure that new and emerging manpower needs and opportunities are properly emphasized.

4. Section 3.26 and 3.27 (i.e., determination of priority of local applications) should be revised in order to clearly reflect the established State goals and to identify the relative priorities among these goals.

III. It is recommended that in part II of the plan labor supply and demand data be compiled using as many sources as possible in order to provide valid data on job opportunities and manpower needs for planning purposes.

a. Specific recommendations for the preparation of the labor supply and demand table include:

1. Other sector output should explicitly consider private school production.

2. Occupational and geographical mobility coefficients should be included.

3. High and low supply and demand occupations should be identified according to specific geographic areas of the State.

IV. It is recommended that the reliability and validity of data in parts II and III be examined in light of the instruments or techniques used for gathering the data. Similar types of data should be consistent within the State plan for a given year and between State plans for successive years.

V. It is recommended that in parts II and III of the plan, new and/or expanding programs for secondary scholars, adults, and handicapped persons be identified as to their geographical location in the State, especially areas identified as depressed.

GEORGIA

1. The State board of education should implement, as part of a total management information system, a comprehensive program evaluation component with a major emphasis on product assessment and program effectiveness.

2. The State board of education should establish and increase communication between business and industry and those responsible for educational program administration.

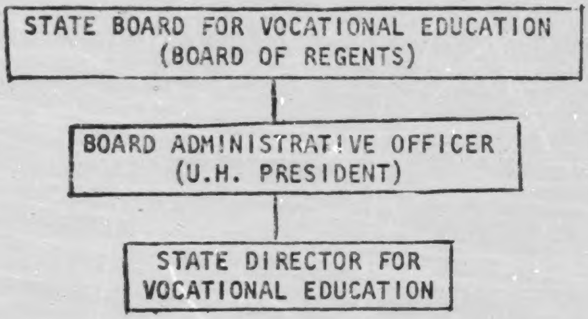
3. The State board of education should explore existing and alternative means of providing more effective job placement services for graduates of vocational education programs.

4. The State board of education should work diligently with other State agencies in the development of a statewide information system that will provide accurate and usable data regarding manpower requirements, job opportunities and employer needs.

HAWAII

a. At its regular meetings, the Board of Regents should adjourn at the end of its consideration of university matters and reconvene as the State board for vocational education with a separate agenda. The council feels this will better emphasize the separate functions of the body and would be more in consonance with the spirit of the laws, both State and Federal, in establishing a State board for vocational education in each State.

b. In order to distinguish its vocational education responsibilities from purely university matters, the administrative relationships should be more direct as follows:


STATE BOARD FOR VOCATIONAL EDUCATION (BOARD OF REGENTS)
BOARD ADMINISTRATIVE OFFICER (U.H. PRESIDENT)
STATE DIRECTOR FOR VOCATIONAL EDUCATION

c. Adequate staff positions should be allocated to the State director's office rather than having the federally funded vocational education staff assigned to other offices such as the community colleges office.

Recommendation—The council is fully cognizant of the need to to re-examine statewide educational priorities in this period of fiscal austerity. At the same time, we feel strongly that vocational education, and the growing interest among youth in the opportunities offered through vocational education, will become an increasingly important consideration in a society where both high school and college graduates have been unable to find employment because they lacked job skills. The Council feels strongly that the investment of State funds in the expansion of vocational education will provide an outstanding benefit to the well-being of the State as well as to the individual. It therefore urges both the State legislature and the administration to provide the necessary funds to continue the implementation of the restructured program.

Comprehensiveness in a community college

Problem—It is a growing concern of the council that the concept of "comprehensiveness" within the community college is becoming less apparent as enrollment grows to accommodate the overflow of nonvocational student majors from the Manoa campus of the University of Hawaii. Comprehensiveness assumes a balance of vocational programs and liberal arts programs at the community college. There has been a steady trend downward of the proportion of the total community college enrollment represented by vocational program majors between 1969 and 1972. The students in vocational programs have decreased proportionally from 45 percent to 39 percent and those in liberal arts have increased from 39 percent to 47 percent. As the pressure increases on community colleges to absorb the lower level enrollment of liberal arts students in the university system, there is a concern that this downward trend will continued for vocational education majors.

Recommendations—The State Board should authorize a study to be made on how vocational education programs can be strengthened to insure that comprehensiveness will be preserved on all community college campuses. In particular, the council recommends that any study include consideration of:

1. A guaranteed percentage for vocational education slots on each campus to insure that students in vocational education programs will not be excluded because of ceilings set by the controlled growth policy.

2. The establishment of two deans of instruction on each campus—one responsible for liberal arts programs and the other responsible for vocational programs, each reporting directly to the provost. It is the strong feeling of the council that the present structure where the dean of instruction may have no experience in vocational programs may discourage the continued development of vocational education programs in the community colleges.

3. A quota reserved within given vocational programs to enable the DOE to place students at the community colleges through early admissions. Although the provosts have maintained that there are no vacancies in their classes, the council feels this defeats the purpose of the early admissions program as set forth in the master plan and urges that a reasonable alternative be found.

4. More options to be made available in vocational education course offerings to vocational majors. In providing more options, careful consideration should also be given toward establishing articulation with four year programs where possible.

Veterans' Education Benefits

Problem—It has been noted nationally (New York Times, April 9, 1972) that only a quarter of the 5.5 million eligible veterans who left the service since early 1965 have taken full advantage of veteran's educational allowances to finish high school or attend college. While the problem involves a number of factors, including a lack of communication on available opportunities, it has been the finding of the council that a problem of different dimension also exists. Several community colleges have reported that veterans are not eligible for educational benefits in programs which are not run on a semester basis. Although the problem is prevalent nationally and stems from the interpretation of the Veterans Administration's rules and regulations, it appears to penalize the veteran who does not wish to enroll in a regular degree program. As the trend in vocational education moves away increasingly from the conventional semester system, the continued rigidity of VA rules will pose increasing problems for the veteran who wishes to enroll in innovative vocational education programes.

Recommendation—There is a need for greater flexibility in the application of VA rules. While it is recognized that any changes must be made on the Federal level, the council feels that joint action should be forthcoming from the community colleges to recommend specific changes.

The council of provosts should confer with the VA representative to explore solutions to the problem. It is possible that under existing rules, considerable leeway in interpretation and application may resolve some of the present problems. Those areas which cannot be handled in this manner should be pinpointed for communication to theh Federal Government and to the State's Congressional delegation.

Recommendation—The State Board for Vocational Education should direct the community colleges to standardize the course contents to effect maximum coordination and articulation. In the many years that this has been discussed, very little has been accomplished. The council wishes to reemphasize it is not referring to course offerings. Not every community college should offer the same courses, but where courses are offered within a given specialization, the content should be standardized.

Vocational education programs in the community colleges should be articulated with the University of Hawaii's 4-year programs so that the vocational education majors may continue with their college education without unwarranted academic restraints.

Federal Appropriations

Problem.—The delay in the release of Federal vocational education appropriations has severely hampered the operation of vocational programs on all community college campuses. The problem is a recurring one. The nature of Federal funding will probably always necessitate some delay and the problem will grow as appropriations under the education amendments of 1972 will be involved in adition to the vocational education appropriations. Both types of appropriations will support occupational education programs in the community colleges. Based on this reality, there is a need for the community colleges to develop a reimbursement mechanism which will enable the operation of programs with State funds until Federal funds are released.

Recommendation.—The provost, the fiscal officer, and all vocational instructors of each community college should be required to participate in planning sessions for the annual State plan for the administration of vocational education. At that time, consideration should be given to techniques and methods which cope with delays in Federal funding and to anticipate the schedule of release of funds. Programs might then be planned accordingly. It is the feeling of the council that each provost should be aware of the problems of Federal funding so that these delays can be explained adequately to their own staffs.

Programs for the Handicapped

Problem.—While significant strides have been made on the secondary level through the occupational skills program in serving the needs of the handicapped, the program should be expanded throughout the State as soon as feasible. In fiscal year 1972, all Oahu high schools with identified mentally retarded educables were served by the occupational skills program. Kapaa High School in Kauai County was the only high school outside Oahu with the program. On the postsecondary level, funds earmarked for serving handicapped persons in regular ongoing occupational programs were primarily in the form of tutorial and interpreter services. In June 1972, a pilot intensive food service training program for deaf and hard-of-hearing adults was held at Kapiolani Community College, but there is no assurance that such efforts will be ongoing.

Recommendation.—The community colleges should make every effort to develop programs for the physically handicapped to prepare them for occupations, especially where the nature of the handicap prevents their enrollment in regular programs or requires special attention. Tutorial services for the handicapped should be a supplemental program and not represent the major effort of the postsecondary level in providing for the handicapped.

IDAHO

The State Advisory Council recommends that the State Board continue its efforts to secure full funding for the Department of Vocational Education.

The State Advisory Council recommends that the State Board take the necessary steps to secure adequate staffing of the State Department of Vocational Education to insure planning and evaluation of all occupational education programs.

The State Advisory Council recommends that the State Board adopt and make public a declaration of policy that supports the career education concept, and to insure implementation of a statewide career education program will:

a. Direct the universities to implement curriculum that will insure that public school teachers and guidance counselors will be trained to function effectively in the public school system of the State.

b. Direct the universities to develop inservice training programs for all teachers and counselors in the public school system of the State.

c. Direct the universities to immediately examine their admissions criteria in relationship to the public school curriculum, so that admission to the university system on the part of students who have been involved in career occupation preparation will be without penalty or loss of credit.

d. Direct the State Superintendent to provide the leadership to implement career education throughout the public school system of Idaho.

e. Direct the State superintendent and local education agencies to immediately implement joint programs in career education with private industry and other State and local agencies.

f. Direct the director of higher education and the university presidents to make full use of private industry and local and State agencies in a cooperative manner to implement career education.

g. In cooperation with the State Advisory Council and other interested groups promote a public information campaign to develop a positive public attitude toward career education.

The State Advisory Council recommends that the State Board opose any legislation to change the organizational structure for vocational education until such time that all education is placed under the jurisdiction of one head, and then career education should be given high priority status.

ILLINOIS

The Advisory Council recommends an annual joint meeting between the Advisory Council and the State Board of Vocational Education and Rehabilitation be held for planning purposes to advance the commonability of interests for better vocational and technical education programs in Illinois.

Certification requirements and procedures for occupational teachers—specifically recent amendments to the school code pertaining to provisional certification—should be continually assessed to determine the effect on quality of vocational programs and if indicated, change in legislation.

Positive action should be taken in fiscal year 1974 to place a significant amount of research, development curriculum and exemplary money in an unsolicited category for the purpose of encouraging innovation and new thinking at the local level. The Advisory Council recommends a continuance of the request for proposal procedure for activities the Division feels are of critical need.

Positive action should be initiated in Fiscal 1973 for long-range planning of a total Statewide system of secondary area vocational centers. Emphasis should be on the occupational delivery system concept rather than on facility construction.

Design and implement in fiscal year 1973 State planning guidelines for career awareness programs at the elementary level. The model programs are virtually complete and have placed Illinois in the forefront of elementary career education research.

Establish by the end of fiscal year 1974 a Management Information System to determine supply and demand needs of occupational program, services and activities.

Initiate efforts to combine local educational agency vocational plans, by area center district or community college district, for effective utilization of those plans at the State level and for coordination of local educational agencies by types and levels.

Design a visible system to insure accountability of local educational agencies that Federal and State funds received from the Division of Vocational and Technical Education supplement rather than supplant other funds.

Initiate efforts to encourage and assist the Chicago Public Schools in long-range planning for vocational education, emphasizing responsibilities of existing types of schools and consideration of additional urban area vocational centers.

Establish during fiscal year 1973, a task force to develop new occupational programs or upgrade existing programs for women at the skill, technical, and semiprofessional level to encourage greater numbers of women to become involved in vocational and technical education. Provide planning grants during fiscal year 1974 to local school systems to pilot the occupational programs developed by the fiscal year 1973 task force.

Develop in fiscal year 1973 an affirmative action program for including significant racial minorities staffing patterns within the Division of Vocational and Technical Education, including mechanisms used to translate the minority life experience into the design of programs in which numbers of minority students are or will be enrolled.

INDIANA

Special emphasis is needed to expand vocational education opportunity for women of the consumer and homemaking programs. Presently, women comprise 37 percent of our labor force. Women are continuing to enter the labor force at a much faster rate than men. Contemporary social concerns such as the "Women's Liberation Movement" are causing additional employment opportunity to be available for women. Emphasis should be placed on the development of vocational programs to accommodate women and planned efforts should be made to encourage the enrollment of women in kinds of programs traditionally considered for "men only."

The administrative structure of vocational education at the State level is of paramount importance. The State Board of Vocational and Technical Education should continue to serve as the responsible body for the receipt and disbursement of Federal vocational funds. It is recognized that certain alternatives in terms of the makeup and location of the State Board might be adopted by the legislature in keeping with the recommendations of the committee for reorganization of the Department of Public Instruction, which has recently completed an exhaustive study. The involvement of the Higher Education Commission should be limited to serving as a "clearinghouse" for postsecondary programs sponsored by institutions of higher education. The tentative recommendations No. 49 and 50 of the Higher Education Commission, as noted in their recent document No. 72-137-6, are deemed to be unacceptable. The State Board of Vocational and Technical Education should pursue the assumption of the role of the "Commission" mandated by Public Law 92-318.

Postsecondary vocational education should be substantially expanded in our State. Even though an increase in overall vocational education enrollments is noted, we still have only about 7,000 persons enrolled in postsecondary vocational programs. All institutions, including area vocational schools and public school districts which are capable of operating postsecondary vocational programs, in addition to institutions of higher education, should be encouraged to develop and offer such programs to the people in all communities of the State.

Continued emphasis should be placed on the emerging concept of "career education." We are at a point in time with the career education "idea" where we need to do more than just fund "model" programs or to conduct "conferences to define career education." It is recommended that an honest commitment to career education be made by the Office of the Superintendent of Public Instruction. A commitment in keeping with that of the U.S. Office of Education. Such a commitment should involve the leadership of all other educational disciplines as well as vocational education.

It is recommended that the State Board provide incentive and encouragement to local educational agencies to become acquainted with the recently adopted criteria of the North Central Association of Secondary Schools and Colleges relative to accreditation of vocational education schools. Consideration might be given to providing added levels of reimbursement to North Central accredited vocational schools. Additionally, continued use of self-evaluation criteria which is compatible to north-central association standards is encouraged.

Continued emphasis should be placed on improving total school guidance services in vocational and career education. It is desirable that guidance counselors in high schools are assigned and definitely responsible for the dissemination of occupational information and to serve as liaison representatives for area vocational schools. Reference is made to the recent report of the National Advisory Council alluding to the relative ineffectiveness of guidance services in our schools. Steps should be taken to insure real internal thrusts to improve vocational guidance and counseling. Consideration should be given to partial funding for specially designated vocational counselors in high schools participating in area vocational education programs. Additionally, emphasis should be placed on expanded placement services for vocational education graduates to insure a smooth transition from training to employment.

It is recommended that a standardized budget format should be developed jointly by the State board of accounts and the State board of vocational and technical education to serve as a model for local educational agency usage. The format should provide for budgeting on a "program" basis and have provision for the identification of all associated costs(including indirect costs as well as direct costs) so that a totally accurate acounting can be made of the costs of vocational education on a program basis. Additionally, such a budgeting format should be adaptable to PPBS systems which will be required for public school accounting by 1975.

The very real need for substantially increased State funding for vocational education continues to persist. It is recommended that the State board of vocational and technical education exercise all the legislative influence at its disposal to increase State appropriations. The major portion of the cost of vocational education remains at the local level. Indiana expends less than $15 per vocational education student per year in comparison with the national average of $58 per student. Additionally, in consideration of the societal needs of vocational education in comparison with the needs for higher education, the State money available for vocational education are considerably more minimal than the State funds made available for higher education. This inequity should be corrected.

It is recommended that the State board of vocational and technical education establish and maintain communication linkages with the Indiana Association of Public School Superintendents and the Indiana School Boards Association so that all the members of these two groups are adequately informed about vocational education policies, rules, regulations and guidelines.

It is recommended that the State board of vocational and technical education favorably consider partial funding of approvable prevocational programs which serve as stepping stones to vocational programs pursuant to Federal funding of title X of Public Law 92–318.

It is recommended that the State board of vocational and technical education not support funding of new area schools that attempt to develop programs in old, outdated facilities which do not provide the flexibility and respectability necessary for modern day vocational education programming.

IOWA

The council recommends that:

1. State funding be sought for continuation of the labor market needs survey portion of the CENIS Project and that, since this kind of data would be useful to many organizations within the State, the project should be coordinated by the State cooperative area manpower planning council.
2. The U.S. Office of Education taxonomy coding system should be revised to reflect the 15 occupational clusters that have been identified by the U.S. Office of Education, and the State plan format should be revised to reflect the reporting of employment needs, according to the 15 occupational clusters.
3. Priority may be given to devoting additional effort to encourage secondary school systems that have high drop-out rates and whose graduates are experiencing high rates of unemployment, to implement vocational programs keyed to labor market needs.
4. Future State plans be prepared identifying priorities for new programs and program expansions, based on differing plateaus of potential funds.
5. When planning for new program starts, priority be given to balancing the offering, keyed to labor market needs, among the seven occupational categories, under which current State plan is developed.
6. Early effort be expended toward developing and implementing a plan to infuse the findings and results from the exemplary projects into ongoing preparatory teacher education programs.
7. A State clearinghouse be established to catalog and disseminate ideas, techniques, and materials resulting from local and statewide career education efforts to the regional educational media centers.
8. The Iowa Education Broadcasting Network be involved, at an early date, in the exemplary projects, so that resources of that service agency can be utilized to enhance career orientation instruction.
9. State plan format be modified to reflect the elementary-secondary school structure under which the majority of the students in the State receive their instruction.

10. The data reporting on the efforts of elementary-secondary schools in the State be refined, so that the status of exploratory opportunities for junior high school grade students can be identified.

11. Legislation be passed requiring that career orientation and exploration be implemented in all elementary and junior high school grades in Iowa.

12. The number of vocational programs available for secondary students should be expanded greatly. Any expansion effort should be keyed to labor market needs. Highest priorities should be given to those school districts with the highest drop-out rates and districts located in counties experiencing high youth unemployment.

13. Efforts toward cross curricular planning should be expanded to provide that academic instruction be oriented to the work world.

14. The follow-up effort of vocational technical program graduates should be expanded to include a survey of student attitude about the program and employer assessment of student performance. Consideration should be given to relieving local school personnel from the massive responsibility for conducting the follow-up. Possibly some centralized agency could complete the job more efficiently and at less cost.

15. An informational program should be implemented for those involved in education and other citizens in Iowa to inform them that career education is not a new name for vocational education, but is a whole new concept of education encompassing work orientation, job exploration, and vocational education.

16. Local school administrators should become members of area manpower planning boards, and labor market trends should be reviewed at meetings of area committees on improvement of education, so that future local school program development may be based on labor market needs.

17. Laboratory equipment needs should be identified so that future appropriation requests can be supported with backup information.

18. The future vocational program reimbursement should be based on the exceptional cost of the program.

19. Reassessment should be made of selected categories for which funds have been earmarked by Congress to determine whether there is a continuing need for the earmarked funds.

20. Legislative action should be taken to require the establishment of 110 or less elementary-secondary school districts in Iowa so that the curricular offering can be made more comprehensive and implementation of the career education concept can be made mandatory in the legislation.

21. Future State plans for post-secondary programs should delineate greater detail, identifying job categories for which new programs will be implemented.

22. Primary emphasis should be given for the use of forthcoming funds to broaden the vocational-technical program offering in area schools with limited offerings. Secondary emphasis should be given to expansion of program offerings in schools already possessing a broad offering.

23. Opportunities for residents of the State to attend any area school in the State should be continued.

24. Area schools that have voids in their program offerings in the fields of distriblution, home economics, health occupations, and agriculture should implement programs in these occupational fields, keyed to labor market needs, to provide programs for students who have talents and interests in these fields of employment training.

25. Area schools should provide structured occupational exploration opportunities for those students who are doubtful about career opportunities.

26. Area schools should exercise caution in implementing technical level and home economics programs to be reasonably sure employment opportunities will exist for program graduates.

27. A study should be implemented to identify methods by which the problems relating to declining population and greater youth interest in vocational-technical education can be resolved.

28. Instruction in communication skills in the area schools should be related to the student's course of vocational instruction and should be adjusted to include interpretation of technical illustrations and basic legal terminology.

29. Follow-up efforts should be vastly improved for both vocational-technical students and arts and science students, and consideration should be given to the establishment of a centralized agency to assume responsibility for this work.

30. Legislative action should be taken to provide for area schools to accumulate funds based on the depreciation rates of capital equipment.

31. An assessment of area school vocational-technical programs should be keyed to achieve the most efficient cost-quality ratio.

KANSAS

1. The State board of education should develop and disseminate policies which clearly state its position on career education in the public schools of Kansas.

2. The State board of education should develop a leadership capability at the State level to plan and coordinate the development of career education.

3. As soon as possible, the State board of education should begin a study of fiscal resources available to local districts which wish to continue successful career education programs after the termination of their exemplary program grant.

4. The State board of education should sponsor a research project to develop and validate suitable evaluation instruments and procedures for career education.

5. Unified School District 379 and the State division of vocational education should make a comprehensive evaluation of the diversified occupations cooperative training program to reconcile differences between the program as operated and the State plan regulations.

6. The vocational teacher education programs should be based on an analysis of the competencies needed for specific assignments in each of the vocational services.

7. The teacher education program for health occupations should be implemented as soon as possible.

8. The teacher education programs should involve qualified persons with special expertise from the State staff or local level when appropriate.

9. The board should promote some joint professional staff appointments within institutions of hihger education for mutual benefit.

10. In vocational teacher education programs that involve practice teaching, consideration should be given to the orientation of the teacher to classroom problems in the early part of the program.

11. Reciprocal credit should be established among the teacher education institutions for courses of essentially the same content and purpose.

12. Where two or more State agencies are involved in setting teacher education requirements, some way should be cooperatively developed to control the extent of these requirements.

13. A State council of vocational teacher educators should be established to provide communications among institutions offering vocational teacher education, the State staff, and local district personnel.

14. Vocational certificates should be organized around types designed fo ra specific purpose and available for use by all services in the division of vocational education.

15. The State board of education should take steps to continue the present position of educational personnel development coordinator.

16. Teacher education programs should be periodically evaluated by a follow-up study designed to test their effectiveness.

17. The division of teacher certification should be designated as the official agency for issuing all vocational certificates, including temporary and provisional, for the maintenance of appropriate records pertaining to the certification of each teacher.

18. All requirements for vocational teacher certification should be fully documented and made a part of the permanent certification file of the teacher.

19. Requirements and procedures for each vocational certificate should be developed in much more detail and made a part of the certification handbook.

20. Teacher education institutions which plan to offer courses for certification or recertification should coordinate these courses with the assistant commissioner for vocational education prior to their initiation.

21. Duplication in application forms and other materials should be minimized.

22. The requirement of a recommendation from the parent teacher education institution should be elimited for recertification purposes.

23. Alternatives to college credit should be developed for the recertification of vocational teachers.

24. A method should be developed to insure that all areas for which a teacher is qualified and which are coded on a single certificate have a common expiration date.

25. The status and use of adult and provisional certificates should be reviewed.

26. Consideration should be given to reducing the number of vocational certificates as outlined in the State plan.

27. It is recommended that the State board of education and the division of vocational education continue to encourage and support innovative and exemplary programs designed to bring vocational education to students in the small rural high schools of the State.

28. It is recommended that the division of vocational education sponsor a series of conferences to identify techniques that will enable area vocational-technical schools to serve more students.

KENTUCKY

1. The development of the comprehensive data system needs to be given vigorous support in the coming months. The momentum toward realizing the original objectives must not be allowed to become sidetracked, and the involvement of other agencies concerned with human and economic resources development must remain an integral part of the system.

2. Local business and industry leaders must have more input into the planning and evaluation of vocational programs at the local and regional levels. Local and regional vocational education administrators must lean heavily on the business and industry communities for guidance in the development and modification of instructional programs.

3. Attention needs to be given to more experimentation in the "module" concept in organizing instructional programs.

4. Ways and means to get more use out of vocational facilities, especially in the summer months, needs to be given close scrutiny during this year. This may necessitate experimenting with teachers' schedules, transportation of students, or even vacation time. We recommend that funds used for innovative purposes be used to remove the obstacles that can be identified in effecting change.

5. There needs to be more attention given to developing curricula based on competencies of students. In theory, the open entry-open exit plan of operation prevails in Kentucky. In practice, however, it is quite limited.

6. It is time to experiment with the traditional 3-hour block of instructional time for secondary students engaged in programs in vocational schools. We encourage experimentation in shortening the time to 2 hours in schools where travel would not be a negative factor. If successful, the change would allow 33 1/3 percent more students to be served without any additional costs. Our recommendations require that, essentially, two basic things be done: (1) a greater involvement of people in the planning and evaluation of programs, and (2) that experimentation with new ideas to improve traditional practices be implemented. We trust that our concern and involvement will help bring these to the front.

LOUISIANA

The Louisiana State Board of Education and State Superintendent should be encouraged to develop a long-range master plan for vocational and technical education in Louisiana.

The organizational structure of Louisiana's education system should be revised with the purpose of developing clear lines of authority, administration and supervision.

Curriculum offerings should be expanded on the secondary and postsecondary level, both in terms of existing programs and the addition of new programs, that will more adequately meet the needs of Louisiana's youth and adults.

The State vocational staff should develop operating standards for area vocational-technical schools which would help insure more uniform staffing patterns, student fees, and levels of finance.

A formula should be developed for the allocation of operating funds on the postsecondary level.

A plan for capital expenditures for facilities and equipment should be developed.

Guidance and counseling should be strengthened at all levels of education, K through adult.

Every effort should be made to keep vocational education in Louisiana abreast of the labor market trends occurring in Louisiana.

Evaluation procedures should be implemented to monitor the part D, exemplary programs so that the most worthwhile attributes of the projects may be disseminated for the general use of all schools in Louisiana.

Greater communication and articulation should occur between secondary schools, postsecondary vocational-technical schools, and colleges and universities in regards to curriculum and the needs of students.

The Bureau for Vocational Education staff should evaluate the merits and feasibility of moving the curriculum laboratory to a location more convenient to the State staff.

More extensive followup studies should be instigated on both the secondary and postsecondary levels.

Area vocational-technical schools should enter into a self-study program such as that of the Southern Association of Colleges and School's Commission on Occupational Education Institutions leading to eventual accreditation.

MAINE

Recommendations for Vocational-Technical Institutes

1. That the relationship and coordination between secondary and postsecondary programs be strengthened.
2. That the efforts already begun at CMVTI and WCVTI which make possible enrollment at several points in the year be continued and broadened and that similar efforts be made at other VTI's.
3. That all VTI's expand their schedules to year-round operation, that funds be sought from the legislature for this purpose, and that some current programs be placed in the summer session.
4. For the supplementary training of employed adults, that these institutions place greater emphasis on moving classes, instructors, and training aids into the workplace or local community.
5. That special programs be developed in all VTI's to specifically meet the vocational needs of identifiable disadvantaged groups.

Recommendations for Regional Vocational-Technical Centers

1. That programs be developed now to include students in the so-called "general course."
2. That experimental programs be established which will bring to vocational guidance, counselors directly from the world of work.

3. That consumer and homemaking, business and office occupation programs which already exist in most of the sending schools and which, therefore, duplicate center offerings be excluded from the general center programs.

4. That by 1976 all operating centers be governed by a joint board of directors drawn from the center and the sending town or district school committees. (This is a logical and essential step in strengthening the centers.) Until the sending systems participate directly in the decisions made about the center, the potential of the idea will not be achieved.

5. For the supplementary training of employed adults, that these institutions place greater emphasis on moving classes, instructors, and training aids into the workplace or local community.

6. That regional centers make a survey of the needs in their area and prepare programs and staff themselves for these persons to serve specifically the physically and socially disadvantaged persons in the State.

Recommendations for Vocational-Technical Programs in Other Secondary Schools

1. That programs be developed now to include students in the so-called, general course.

2. That schools which do not now have any approval vocational programs become the special objects of attention for the State department and the VTI's and that services comparable to those now offered local systems by WCVTI be carefully considered.

3. That the department of education provide services for the development of programs in these schools to serve adults and disadvantaged persons.

MARYLAND

A joint committee of the department of education and the council should undertake to bring together representatives of concerned agencies for the purpose of designing a statewide manpower data collection and interpretation system,worthy of support by all interested parties.

Community involvement in planning and administering local programs should continue to be stressed, with special emphasis placed on the utilization of local advisory councils. The advisory council recommends that the council and the division of vocational education form a joint committee to seek ways and means of implementing this recommendation.

The State Board of Education and its staff should further increase their efforts in the development of a program to help build a favorable image toward vocational technical education.

Such a program should include a series of workshops for school administrators, counselors, and teachers. Emphasis should be placed upon information about employment opportunities, educational requirements, economic and other benefits of the various vocations, with the primary attention devoted to those jobs requiring less than a baccalaureate degree. The workshops should involve extensive dialogue between educators and representatives of business, industry, labor, government, and other local groups.

Local systems should be notified by the State department of education of the amount and timing of Federal vocational education appropriations not later than 30 days after SDE has received similar notification from the Office of Education.

The State department of education makes an annual report to the public within 120 days after the close of the fiscal year. This report should provide evidence of progress toward goals for vocational technical education as contained in the State plan. The report also should contain a financial statement which explains to whom money was distributed and how it was used. Distribution of this report should be made to elected officials, school board members, local advisory councils, PTA's, and other concerned individuals and organizations.

The State department of education should give proper emphasis to vocational education research projects, particularly those concerned with student followup and program evaluation, to assure a planned future development of vocational education programs in Maryland.

The State department of education should work with local systems in developing procedures for implementing the State policy on student placement. The State should hold the local system responsible for maintaining an effective student placement program or else arrange with other agencies to provide placement service.

The State department of education should set forth in the State plan for vocational education more definite goals for serving the handicapped and disadvantaged, and particular attention should be given to political subdivisions designated as depressed or redevelopment areas.

The State department of education and the State board for community colleges should increase their efforts to assure that vocational technical programs reflect not only local but regional State and national manpower needs. Further steps should be taken to improve articulation between secondary and postsecondary programs and to prevent costly and unnecessary duplication of programs. The two State agencies should be increasingly sensitive to the need for vocational programs to meet new and emerging occupational trends in Maryland and to provide training personnel for those occupations presently experiencing manpower shortages.

The State board of education should review the recommendations made in the council-sponsored study, "Career Guidance in Maryland", Appendix E, and prepare a response to each recommendation.

MASSACHUSETTS

1. Use local, regional, and State leadership to encourage cooperation between the many agencies, schools, and colleges which are in a position to contribute to restoring Massachusetts to a leadership position in education for the world of work.

2. Try to break down the zealously guarded geopolitical town and city attitudes which in the name of democracy and home rule have evaded and avoided many opportunities for intracity and intratown cooperation in many facets of vocational training.

3. Encourage the executive department, and particularly the Governor, to sponsor legislation which will move the State closer to

the goal of an appropriate education for every citizen of this commonwealth whether he or she be handicapped, disadvantaged, old or young, black or white, majority or minority, or for whatever creed or political belief. We can aspire to no less because we have the need, we have the resources if we use them wisely and if we have the will, the results can aid this State to regain its rapidly diminishing economic position in this country, and more importantly, make school exciting and interesting again for a lot of citizens both young and old.

4. Ask that the General Court enact thoughtful, well designed legislation providing financial support to the State schools which are in accord with the principles of the civil rights laws and the 14th amendment. The general court with its 240 representatives and 40 senators is by law a giant central school committee for the State. Only they have the authority and the power to correct the terrible inequities in education in this State not only between rich and poor towns and cities, but equally important, the inequity between those fortunate students who are selected for the costly but highly effective regional vocational-technical schools and the unfortunates who are denied entry to these same schools.

5. Of no less importance are the problems of the unemployed whether they be unskilled youngsters and adults or skilled professionals who are unemployed because the supply is greater than the demand. We must muster all the resources of our private as well as our public schools at both the secondary and postsecondary levels operating on both day and night schedules to train these unfortunates for employment.

MICHIGAN

Recommendations from Council Committees

a. Apprenticeships:

1. Apprentice training should be thought of as a logical extension of public education and should be administered by an appropriate service within the Michigan Department of Education;

2. A person entering an apprenticeship should be given credit for prior educational and occupational experience; and

3. The concept of apprentice training should be broadened and not restricted to the more traditional trade training areas (e.g., carpentry, plumbing, etc.)

b. Guidance and counseling:

1. More counseling and guidance personnel need to be trained and assigned to work with children in kindergarten through sixth grade so that all pupils will have greater knowledge regarding the world of work;

2. Opportunities for career exploration must be expanded to all educational levels; and

3. Greater financial support must be provided for guidance and counseling and must come from all parts of education and not only vocational education.

c. Handicapped and disadvantaged:

1. Occupational training programs for the disadvantaged and handicapped must continue to expand;

2. Better coordination between the Vocational Education and Career Development Services, Compensatory Education Services, Vocational Rehabilitation Services and Special Education Services of the Michigan Department of Education must be developed;

3. Local school districts must draw disadvantaged and handicapped students into the "regular" vocational education programs;

4. Career education programs must be offered to the disadvantaged and handicapped; and

5. Definitions of handicapped and disadvantaged must be clearly delineated in operational terms.

d. Legislation:

1. All legislative matters which affect vocational education should be submitted to the council for review and recommendation;

2. Legislators should be made more aware of vocational education benefits and needs.

e. Placement:

1. All occupational training should be coordinated with the job placement of students;

2. School districts must be responsible for job placement no matter what the staff requirements; and

3. To a certain extent, the level of reimbursement for vocational programs in schools should be dependent on the implementation of successful placement programs.

f. Private Schools:

1. The Michigan Department of Education should develop a map which pinpoints the exact location of certified private schools and should distribute it throughout the State;

2. All performance contracts between public schools and private schools should contain provisions for supportive services such as guidance, counseling, tutoring, etc; and

3. Every person of high school age should have the option of attending either a private or public school at public expense providing that service cannot be provided by the public school system.

Evaluation

a. Evaluation should be an integral component of every vocational education program in the State of Michigan;

b. Measurable performance objectives should be developed for all occupational areas in terms of student needs and, ultimately, employability;

c. Evaluation models should be developed for vocational education at the secondary and postsecondary levels; and

d. Evaluation procedures should be developed for all of vocational education but especially special needs programing.

Other Recommendations

a. Work must continue on cost benefit and/or cost effectiveness analysis of vocational education;

b. Procedures for projecting manpower needs should be developed and tested;

c. Women and members of minority groups should be encouraged to enter all occupations;

d. Greater emphasis should be placed upon consumer education.

MISSISSIPPI

1. Immediate attention and concerted effort should be given to providing occupationally related remedial instruction as needed by vocational students, and to be taught by specialists in language arts and mathematics in every vocational complex in the State (provided funds are available).

2. Every vocational complex, both secondary and postsecondary, should provide a more intensified guidance involvement and services through a well planned and well organized program of personal development, human relations and worker attitudes.

3. Every effort should be made to make available occupational orientation to all middle grade students throughout the State.

4. A feasibility study should be made by the appropriate department heads to ascertain the possibility of broadening vocational offerings for girls in the areas of occupational home economics, business and office and coooperative education, as well as in any other occupational area where deemed necessary.

5. A continuous effort should be maintained to increase the utilization of physical plant facilities and instructional staff in all secondary and postsecondary vocational and technical complexes where enrollments and completions are at a level of less than full capacity.

6. Continued effort should be maintained to improve local plans with respect to organization, content and physical makeup, and also to make a concerted effort to organize a workable procedure at the local level whereby the local plans will reach the State office before the State plan is completed so that coördination between the local plans and the State plan can be done in order to make the State plan a planning document rather than a compliance document.

MISSOURI

1. Exert strong leadership in the development of the cluster concept in vocational education.

2. Reorganize the structure and function of the career and adult education division.

3. Study and instate changes in the vocational evaluation system.

4. Make counseling and guidance accountable.

5. Form a labor-industry-education committee.

6. Include concepts of economics in both the elementary and secondary curriculums.

7. Local advisory committees should attest their involvement in the local planning instrument annually.

8. Equal opportunity information should be included in MOTIS (Missouri occupational training information system).

9. No additional area vocational schools should be designated until MOTIS becomes functional.

10. Develop a new formula for the distribution of vocational funds.

MONTANA

1. The office of the superintendent of public instruction and the employment security division should cooopérate in gathering regional employment data. Vocational education planning should be based on both State and regional data.

2. The individual training institutions should assume the responsibility for informing entering students of the employment possibilities—in and out of state—potential salaries, full descriptions of the training provided and related jobs which may be available to them.

3. The disadvantaged should receive a high priority for vocational training whether our judgments are made on a purely humanitarian basis or a coldly economic one. More of the disadvantaged people should be helped by vocational training than are currently being served in Montana.

4. As soon as program exit figures are available, the office of the superintendent of public instruction should undertake a manpower correlation study similar to that recently completed in the State of Oregon. This study is an effort to analyze the extent to which educational programs in that State are compatible with manpower requirements. Such a manpower study for Montana should be based on the regional labor market as well as the State market.

5. Continued and intensified efforts should be made to increase cooperation, coordination and articulation of education efforts among agencies as well as individuals involved in providing for the vocational needs of people.

6. The office of superintendent of public instruction and the employment security division should cooperatively develop a system whereby job placement counselors are specifically assigned and strategically located and charged with the responsibility for providing job placement assistance for students.

7. The State board should study the possibility of providing added monetary incentives to the local districts to encourage them to provide more adult vocational education.

8. The State board of education should work with all public postsecondary institutions on the problem of acceptance of those proficiencies already possessed by a student, thus eliminating unnecessary course repetition.

The council would also like to reemphasize the recommendation parts of five resolutions submitted to the State board in September of 1972:

> 1. We recommend the State Board of Education, as the highest policy making board for education in Montana, accept the concept of career education and reflect such acceptance in their biennium budget in support of education in Montana.
>
> 2. The Council recommends that the State Board of Education give strong budget and administrative support to postsecondary vocational education.
>
> 3. The Council recommends that the State Board of Education submit to the legislature an appropriation request reflecting a significant increase of state funds for vocational education.
>
> 4. We recommend the State Board of Education propose and support legislative action which would eliminate the present dilemma regarding the leasing, purchasing, or construction of adequate postsecondary vocational education facilities and provide financial means to meet the facility needs of present and

future postsecondary vocational education as expressed in Article X of the newly adopted constitution of Montana.

5. We recommend the State Board of Education promote a thorough review of the legislative status of vocational education and request the assistance of all available sources to conduct this review and prepare proposed legislation recommended by the review.

NEBRASKA

As the new technical community college system in the State becomes operational and as new programs are proposed, there should be a specific concern for the number of educational programs already in process, both public and private. The total number of trainees prepared during the year should be compared with employment opportunities identified within the area and the State as a whole.

The council reaffirms its 1971 recommendation concerning career education. The council believes that the acceptance of career education will move more rapidly with the involvement of many in this statewide task.

Previous Concerns that need new emphasis

1. The schools' emphasis in occupational orientation should originate in the grades and continue throughout the junior and senior high levels. A greater effirt is needed in developing full student resource potential.

2. Nebraska secondary schools give much more attention to the early school leaver. Special consideration should be given to providing more flexible and relevant curricula.

3. Schools with occupational programs should encourage more students to enroll in these classes. Many of the classes could accommodate a larger enrollment. The reasons students do not enroll in occupational programs should be closely monitored with corrective action taken locally to assure high educational quality of the program.

4. The council believes that the comprehensive high school is the most feasible secondary school structure for meeting the needs of youth. Secondary schools which serve only the liberal arts needs of youth are not realistically preparing their students for the demands of our present society.

5. One of Nebraska's most dynamic resources is her young people. Each prospective citizen should have the opportunity to develop whatever skills he needs to enter and be successful in the work force. It shall be the goal of this State to make occupational education available to each person as a part of his educational process. The educational experiences of students should be tied closely to their future career goals.

The council recommends a more extensive use of local vocational advisory committees be mandated in Nebraska. It is especially concerning that 42 percent of the schools have no local advisory committee activity and another 30 percent are informally organized. There should be evidence of greater participation of the advisory committee in preparation of the local plans for vocational education.

Management of a local advisory committee is a key to its efficiency and effectiveness. Assistance in setting up a local vocational advisory committee may be received from the consultants of the division of vocational education. In addition, all vocational teacher education agencies should include the management of local vocational advisory committees as part of their inservice and preservice teacher preparation.

The Council recommends that unnecessary duplication of courses be a State concern as new courses are considered by the technical community colleges. There should be a definite goal to build specialization and depth in the ongoing courses. The request for new programs should take into consideration needs, job opportunities, and other programs available in the State.

It should be the secondary schools' responsibility to inform students of the training opportunities provided by the technical community colleges. It is also the responsibility of the secondary schools to determine the need for adult education programs in their service area and to provide the leadership for initiating them.

The Council is in agreement with the recommendation of the vocational education research review committee that the research coordinating unit's statewide sampling of employers should be expanded from 3 percent to a minimum of 5. The data should be cross-referenced with the three-digit occupational groups from the "Dictionary of Occupational Titles and the U.S. Office of Education Code" to make the findings more usable to educators and to allow more possibility for comparison with Department of Labor data. New sources must be developed for updating the master population of firms in the State in order to obtain a valid sampling.

The Council recommends that vocational education be involved in all vocational training which provides systematic instruction if only from the advisory or consultative level of participation. There should be a coordination of all agencies that provide systematic manpower development in order to avoid duplication of effort. This would include community action programs, penal training, apprenticeship, Office of Economic Opportunity preparation, and any others. In addition, closer coordination and articulation are needed between vocational education and the Division of Vocational Rehabilitation in serving the mentally retarded and inmates of correctional institutions.

The Council recommends that local schools make a careful evaluation of teacher load in considering expansion of their vocational program. There have been instances in which schools have expanded their vocational program offering by assigning additional teaching responsibilities to instructors already at maximum capacity. Such a practice ca nonly sacrifice the quality of education.

Many schools with vocational programs should be operating at greater capacity. There is room for considerable enrollment growth without adding new programs.

"The Teacher's Guide for Project Devise" is in its third revision. It was developed specifically for assisting elementary teachers to integrate occupational awareness into their instructional program. The guide was field tested in the developmental process and is a sound educational document.

It is now imperative that copies of the guide be reproduced in sufficient quantity for implementation throughout the State. There is a need for special workshops to assist teachers in using the guide. Elementary teacher education agencies should incorporate the instructional competency of integrating occupational awareness as a part of their professional preparation program.

Local school agencies have need to expand further programs to serve those who are not benefiting from the regular instruction and to restructure the educational offering to become more relevant and meaningful to these students.

In order to implement further programs for the disadvantaged, the Council suggests that a series of not fewer than four meetings be scheduled by the Council during the early fall in the major population centers of the State. These meetings are to be for the purpose of assisting educators and others in developing programs to serve the disadvantaged.

Commissioner Stanley, the Vocational Education Advisory Council, and the Nebraska Personnel Guidance Association urged the State board of education last year to establish a section for student personnel services within the State department of education. There was uniform agreement that the vocational guidance and counseling personnel should be a part of the pupil personnel services section. The issues and problems were listed under three categories:

> More leadership on guidance and counseling to be provided at the state level.
>
> Need for comprehensive guidance services for K–12, postsecondary, and adults.
>
> Need for more understanding and agreement of the counselor's appropriate role and function.

The Council previously recommended implementing this section for student personnel services in a special report to the State board. The details of establishing competitive salaries and obtaining competent staff should be expedited in order to make this important administrative unit functional without further delay.

Nebraska schools must provide guidance programs which assist students in exploring occupational interests, understanding the world of work, and planning for continuing education which will enable them to achieve their specific goals. Guidance personnel and teachers should be aware of services available to handicapped individuals through the State rehabilitation agencies, particularly in planning for postsecondary training and vocational placement.

In all instructional areas, from the early grades through junior and senior high school, orientation to the occupations needs to receive much greater emphasis in order to assist students in making wise occupational decisions.

The preservice and inservice preparation of counselors must be modified to place additional emphasis upon orientation to the occupations because this must become a more important aspect of the educational process. There must be an increase in the use of workshops, drive-in conferences, educational television, the annual Nebraska Professional Guidance Association conference, and all other innovative methods for presently employed counselors to bring about a more equitable balance of educational preparation and orientation to the occupations.

Counselors' contracts should be extended beyond the basic nine months: (1) To help students secure summer employment, (2) to determine local occupational opportunities and community needs, and (3) to assist in the preparation of the local plan for vocational education.

Counselors should keep informed about educational opportunities now being developed by the new State community technical college system. Their closer proximity and expanded occupational offering can provide realistic answers for up to 80 percent of the student population. As the community colleges become completely operational, they will provide another source of occupational orientation.

Also vitally needed in an effective statewide counseling effort is a thorough administrative understanding of the concepts and functions of the guidance counselor. Many counselors feel that an administrator exerts a great influence on the local counseling program.

The following recommendations apply to the preparation of guidance counselors and emerged from conversations between the advisory council and counselor educators.

a. The background preparation of all counselors, administrators, elementary, an dsecondary educators needs strengthening from the occupational standpoint. A much greater orientation will be necessary to implement career education.

b. Counselor preparation presently involves up to 3 credit hours of orientation to the occupations through the masters' degree: this should be expanded to 9–12 hours minimally.

c. The professional preparation of all educators must contain a sound philosophy of the concepts and techniques of guidance. This is vitally needed for elementary and secondary teachers if the implementation of career education is to be successful.

d. Counselor preparation should involve a 1 or 2-semester internship or practicum in selected school settings to assure the competency development vital to effective counseling. Actual world of work and Department of Labor experiences should also be strongly considered as part of the practicum.

e. All of education needs to move much faster toward establishment of performance objectives and their use in teaching. The counselors must be among the first to become fully involved. Educational activities which do not contribute toward a specific educational objective should be modified or seriously questioned.

f. The resources of the educational service units must be involved more extensively, along with more input from local business and industry.

g. The facilities and setting within many counselor preparation departments and their State division of personnel services could be more conducive to creating the influence and bringing about the changes desired. Considerable improvement is needed to equal the setting which many local schools now enjoy.

h. Counselors in the field need much stronger leadership and field supervision from the division of personnel services to coordinate activities, establish priorities, and implement career education effectively.

i. Also needed in order to implement career education are several series of workshops which involve administrators, counselors, and teachers involved in curriculum revision activities.

j. Counselors should make greater utilization of the orientational resources in their local communities; such as: the Vocational Rehabilitation Service, the local labor office, employers, and all others who can assist students in realizing their potentialities.

k. There is a need for all agencies involved in the preparation of counselors to agree on the role of the counselor as it applies to the elementary, secondary, postsecondary, and adult levels.

Recruitment of quality people into the teaching ranks should be the responsibility of all in the field, especially the teacher educators who should have an accurate appraisal of the annual state needs.

Followup of those prepared to teach should be a responsibility of the teacher education agency to keep abreast of professional competencies needed, tenure, migration, and professional advancement.

There should be a higher percentage of those vocationally certified to teach that accept teaching positions. This is a loss of valuable human and State resource, especially in periods of growth and short teacher supply.

The research responsibility for each occupational section should be centered with the teacher education agency and coordinated through the Nebraska Research Coordinating Unit. This been practiced to some extent in the past but could be much more extensive. The service of the research coordinating unit can be utilized to a greater degree to correlate the research needs with possible resources available.

There should be close communication between the vocational agency and the occupational area through consultants and advisory groups. There should never be a compromise on the occupational experience requirement for teacher certification.

The need for teacher preparation for health occupations remains unmet. Such a program should be established within the vocational teacher education department of a 4-year educational institution within the state.

The council recommends that youth activities be incorporated in all vocational programs as an integral part of the course instruction, sponsorship of a youth activity should be a part of the instructor's responsibility. The activities of the local organization should be realistically designed to contribute to definite educational objectives.

a. The teacher competency of managing vocational youth activities should be a part of the preservice teacher preparation.

b. Leadership for assisting local advisors with the sponsorship of youth activities should be provided by the division of vocational education with in-service assistance offered where local participation and interest are at a low ebb.

c. Postsecondary vocational youth activities also serve an important purpose and should be encouraged as part of that instructional program.

All people in educational planning, administration, and counseling should emphasize the attainment of an occupational skill, together with the other desirable goals in education. The financial commitment necessary to provide this educational opportunity must be supported with emphasis equal to priorities of other major aspects of the educational process.

Vocational education should be viewed as an integral part of the modern comprehensive school, which is designed to meet the needs of a technical society. The council recommends the concept of career education as the desired educational thrust which provides for the varied educational needs of youth. Postsecondary opportunities for continuing vocational education should be stressed with emphasis equal to that given to the baccalaureate degree. It is the council's concern that all Nebraskans have the opportunity to achieve full self realization in accordance with their abilities and preferences.

NEVADA

1. *Career education.*—It is recommended that the State of Nevada, through its educational system including the State board of education, the board of regents, and other emerging boards and/or commissions, establish career education as the State's highest educational priority. This priority may be best addressed through a system of career education planning, development, implementation and coordination at the State and local levels. It is recommended that the ultimate goal of such a system be to provide every student, grade K through university level, with educational opportunities toward preparing him to: (1) Enter a postsecondary institution for the purpose of pursuing a professional or vocational-technical instructional program, or (2) enter into occupational or professional employment at a level, and within a field, which takes fullest advantage of his educational preparation toward personally rewarding career objectives, and which are within the parameters of the occupational or professional labor market demands.

2. *Career education seminars.*—It is recommended that the State board of education direct the vocational-technical and adult education branch of the State department of education to plan, hold and contract for third party evaluation of a series of State level career education seminars. Such seminars should be directed toward local educational agency administrators, including superintendents, principals and career/vocational education directors. Such seminars should have the purpose of providing information regarding (1) orientation, (2) planning, (3) implementation and (4) continuation toward effective career education programing. Such seminars may be most appropriately funded through State Department of Education funds.

3. *Articulation and coordination.*—It is recommended that the State educational system, including the State board of education, the board of regents, county school district boards of education, and local school systems and other emerging boards or commissions, cooperate with and provide support for the articulation and coordination efforts initiated by the State director of vocational-technical and adult education branch of the State department of education. Such articulation and coordination efforts should ultimately serve to (1) increase program articulation and coordination, and (2) eliminate duplication of effort and responsibility among educational agencies toward the assurance that the educational agencies toward the assurance that the educational system effficently and effectively

prepare individuals to become responsible and productive members of society.

4. *Education consistent with the professional and occupational labor market.*—It is recommended that the State board of education, the board of regents and other emerging boards or commissions responsible for setting State level policy regarding career and/or vocational-technical education, grade K through university level, direct their appropriate respective administrative agencies to utilize current labor market demands toward effective educational programming. Agencies such as the U.S. Department of Labor and the State Employment Security Department should be increasingly utilized as sources of program planning data.

5. *Career/vocational teacher education.*—It is recommended that emerging plans to establish a career/vocational teacher education unit within the University of Nevada System, and to be initially located on the University of Nevada-Reno campus, be strongly supported toward the full implementation and operation of the unit during fiscal year 1973.

6. *Personnel.*—It is recommended that the new personnel position of Supervisor of Vocational Education for Southern Nevada be established. The position should be within the staff structure of the Vocational-Technical Education Branch, State Department of Education, and is deemed timely and appropriate toward the further development of career education.

7. *Support for career and vocational-technical education.*—It is recommended that the State provide, through general revenue appropriations, $2 million each fiscal year to support justified career and vocational-technical education programs, grades K through 12, in county school districts. Such appropriations should supplement existing grants from Federal, State and private sources.

NEW JERSEY

The Proprietary School—The Problems of Partnership

Recommendation 1.—The State Board of Education, through the administration of the Division of Vocational Education, should support pilot projects for testing the feasibility of utilizing the proprietary schools on a contracting basis to render a vocational or occupational skill training service to students within a local educational agency who need or desire such service but do not have access to skill training within the local district. Such pilot projects should seek:

> To determine future policies that are applicable on the State level to develop a cooperative arrangement for utilization of the proprietary school sector within a local public school district both for the public school student (youths and adults) and the private nonprofit school student.
>
> To determine to what extent the proprietary schools can provide training services and facilities in order to help reduce the total economic cost of occupational education within a local public school district that may desire or need such services.
>
> To assess the result and impact of proprietary school skill training upon both the public and private nonprofit school student in terms of his or her total educational development.

Recommendation 2.—When and as required, State procedures be enacted which would make it mandatory within each local district (K through 12, community colleges and postsecondary schools) to conduct a cost effective analysis of occupational and skill development needs with a view to utilizing private school services and facilities where such an arrangement would provide equivalent service at lesser cost.

The Private Nonprofit Schools—A Share in the Legacy

Recommendation 1.—The State Board of Education through the Division of Vocational Education should conduct workshops and seminars in technology for children and introduction to vocations programs designed strictly to instruct private non-profit school administrators and teachers in the techniques, objectives, benefits and results of implementing such programs on the elementary school level.

Recommendation 2.—The State Board of Education should encourage LEA's to enter into agreements to provide share-timed vocational instruction to students in private nonprofit schools.

Public-Postsecondary Vocational Education—Whose Job Is It?

Recommendation 1.—It is recommended that a joint task force be established, with equal representation from the Department of Higher Education and the Division of Vocational Education. The task force will report to the Department of Education and to the Department of Higher Education Joint Committee on postsecondary vocational education. This task force should be composed of key staff members of both departments. Utilizing staff at the working level should improve communication and understanding along with giving impetus to the efforts of the current joint committee. This task force should be constituted immediately, and remain in existence until the following tasks are achieved:

- Development of a long range plan for postsecondary vocational education.
- Establishment of criteria for the allocation of funds to postsecondary vocational programs to reflect not only the priorities established by Federal legislation for funding under Public Law 90-576 but also reflect the objectives established in the long range plan.
- Development of a flexible procedural mechanism for us at the county level to apply to the Board of Higher Education for expansion of the authority to grant credit and degrees outside the community college system.
- Development of a working definition of postsecondary education suitable to New Jersey's needs, to determine whether in fact a minimum of 15 percent of the funds under Public Law 90-576 is going to benefit postsecondary vocational education, and to examine whether postsecondary education has sufficient justification to request that its share of Public Law 90-576 funds be increased.

Recommendation 2.—In any county system with both an actual or proposed community college and/or AVTS, a document articulating the respective roles, responsibilities and mechanisms for coordination between the two institutions should be submitted to the task force for approval before any funding requests will be accepted by the Division of Vocational Education or the Department of Higher Education.

Recommendation 3.—Recommendation for approval action on funding applications for postsecondary vocational funds should be made by the task force, subject to the final approval of the State board of education (statutory requirement of Federal legislation), until such time as the task force has developed and implemented approval funding criteria for postsecondary vocational programs.

Vocational Teacher Education—The Need for a System

Recommendation 1.—The Division of Vocational Education should take a leadership role in developing a long range plan for vocational teacher education which recognizes the need for vocational teachers in a planned and systematic way. The plan should take into consideration:

Manpower requirements.

Vocational enrollment projections (keyed to State Plan).

The number and characteristics of vocational teachers currently teaching in the state.

Preservice requirements related to recruiting sources for determination of requirements in certification programs and degree programs.

Inservice requirements related to:

(*a*) Needs for certification programs for qualifying new teachers;

(*b*) Degree programs for upgrading teachers;

(*c*) Programs to upgrade teachers for administration positions;

(*d*) Seminars, workshops, short courses (with or without credit) for improving pedagogic skills.

Recommendation 2.—The system of higher education in New Jersey should provide equitable financial support to departments of vocational and technical education in recognition of the critical need to provide qualified instructional staffs to local districts for the purpose of educating youths and adults in occupational and vocational skills necessary for employment.

Funding—Where Do the Dollars Come From?

Recommendation.—The council should assist the division of vocational education to find ways to develop reliable data banks at the local district level, by undertaking a pilot project to develop a model which directly involves the fiscal allocations of the State for vocational education programs, services and activities within the local school district at the elementary, secondary (comprehensive high schools, area vocational schools) and postsecondary levels.

The objectives of the model are the following:

To obtain an analysis of the patterns of utilization of Federal, State and local funds for vocational education at the local level.

To develop a practical methodology for allocating funds for vocational education at the local level.

To give the division of vocational education an immediate vehicle for assessing costs involved in modifying the existing financial supporting system.

NEW MEXICO

Beginning the fiscal year 1973–74, the State board of education should assume total fiscal responsibility for all State and federally supported vocational education programs through the secondary level. Distribution of such funds should be accomplished by means of an equalized, incentive-oriented allocation system recognizing the objectives of vocational education in New Mexico.

The council would suggest that such a system involve: (1) a weighted pupil enrollment formula providing a maximum entitlement to any specific LEA and reflecting the "added cost" factor, (2) an entitlement classification structure inherent in the system which would result in additional funds if the LEA continues to improve its educational system, (3) an equalization component recognizing local wealth and effort as a determination of excess costs, and (4) a program proposal input, similar to the current review system, based on criteria essential in determining necessary resource allocations. To assure greater validity in the selection data input, the criteria should be distributed to all potential requestors well in advance of the due date for proposals.

The division of vocational education has made significant progress in developing the PPB system at the State level; however, to promote a desired data input level, the division should begin to extend the system to the local realizing, of course, that supplementary support may be necessary to secure quality input.

The council recommends:

1. That the State board of education continue as its top priority the redirection of the State's educational system toward "career education." That the State should utilize available advisory groups to assist in an extensive statewide information system to communicate career education to the communities and their educators.

2. That the State board of education support necessary legislative action to provide financial incentive to elementary schools desiring to implement career awareness programs as prescribed in the "Minimum Standards for New Mexico Schools."

3. That the State board of education require as a part of its "Minimum Standards for New Mexico Schools" that by July 1, 1973, every junior high or middle school provide all students with career information, orientation, and exploration as an integral part of the regular curriculum.

4. That the State board of education encourage continued development of an expanded spectrum of career opportunities at all levels of the high school curriculum so that every student upon leaving or graduation is prepared to continue career preparation or maintain a salable skill.

The council recommends:

1. That the State board of education encourage additional participation in the part of community leaders, industry, labor, and affiliated groups in the design and implementation of career-based curriculum projects.

2. That the State board of education take action to expand the educational setting through:

(*a*) Increased diversified cooperative work experience programs.

(*b*) Provisions for contracting businesses and industries for the purpose of utilizing facilities and personnel for career information, exploration, and specialized training.

(*c*) Provisions for contractual agreements with State-accredited private schools offering occupational training not otherwise available.

(*d*) Specialized intensified pre-employment/occupational preparation laboratories in secondary and/or postsecondary facilities located near a new or expanding industry assuring guaranteed jobs.

3. That provisions be made for financial support of the transportation of students attending occupational training programs in another district or school as a part of their comprehensive educational program.

4. That the State board of education study the feasibility of establishing occupational training satellite centers and/or expanded mobile operations as an extended service of existing area-vocational schools to serve rural areas.

5. That the State commission, created under title XII of the Higher Education Act of 1965, as amended (Public Law 92–318, 1972), for the purpose of developing a comprehensive plan for postsecondary occupational education, strive to assure continuity within a comprehensive K–14 career development program.

The council recommends:

1. That action be taken to develop a 5-year State plan for teacher preparation. Such a document would serve to coordinate the professional development programs of every teacher-training institution within the State on a basis of personnel needs and availability plus projected resources.

2. That institutions currently involved in teacher preparation expand their resources through the development of cooperative agreements with area-vocational schools, private institutions, and local business and industries to supplement on-campus activities and actual work experience, and that any supplementary fiscal provisions available from the State for vocational teacher preparation be directed to assisting such efforts.

3. That provisions be made to intensify in-service opportunities for vocational and technical instructional and ancillary personnel resulting from needs specified by local education authorities.

4. That nonteaching work experiences receive greater emphasis as an integral part of programs preparing all teachers, counselors, and ancillary personnel by allowing such work experience to be considered in lieu of educational experiences for granting provisional certification to teach in an institution which will, along with the State board of education, assume responsibility for developing a schedule of professional development designed to provide those professional capabilities necessary to accomplish the task for which he or she was selected.

NEW YORK

1. We recommend that the New York State Board of Regents develop a position paper on guidance and counseling in New York State which takes into consideration:

(*a*) Recommendations of the colloquium on guidance and counseling.

(*b*) Recommendations of the National Advisory Council on Vocational Education in its "Sixth Report on Counseling and Guidance."

(*c*) Recommendations of the commissioner of education for New York State in his speeches before the Capital District and State Personnel and Guidance Associations in 1972.

(*d*) The State education department's position paper No 11, "Occupational Education," and further, that action be taken to implement the concepts developed in this position paper.

2. We recommend that the New York State Board of Regents support revised counselor certification requirements which would emphasize:

(*a*) A period of work experience outside of education.

(*b*) Course work in group counseling techniques and occupational information sources and resources.

(*c*) Competency-based evaluation criteria.

3. We recommend that the State education department support inservice programs designed to increase occupational knowledge of presently employed counselors.

4. We recommend that the New York State Board of Regents support a revised system of guidance and counseling which would include:

(*a*) The use of paraprofessionals, local advisory councils, and community resources (persons from business and industry/labor).

(*b*) The utilization of classroom teachers who have expertise and direct contacts with specific occupational areas.

(*c*) Incorporate a work experience component for any student who desired it.

(*d*) The use of job placement and followup activities as a definite part of counseling services.

(*e*) Service to school dropouts, veterans, former inmates of mental and penal institutions, and other adults between jobs.

NORTH CAROLINA

Recommendations of the Council are normally made to the State board of education, since the legal mandate of the Council is to be advisory to that board. At various times the Council feels a need for directing recommendations to other groups or individuals. The recommendations of the Council in this report, while directed to the State board and its staffs, have implications for other groups.

1. That the timetable for development for the State plan for occupational education allow for its adoption by the State board of education prior to the beginning of the fiscal year for which the plan is made and that the goals and objectives section be distributed in time to impact on local program planning.

2. That a detailed analysis be made each year of the extent to which the previous year's goals and objectives (as outlined in the State plan) were met and this analysis published and distributed not later than August 31.

3. That the State board of education analyze ways and means and costs of increasing the availability of occupational education programs to students at all levels and to out-of-school youth and adults.

4. That the State board of education analyze ways and means and costs of increasing the availability of occupational education programs to students at all levels and to out-of-school youth and adults.

5. That the State board of education take the leadership in developing and implementing a planned program to assist the general public to more clearly understand and appreciate the importance of occupational education as one major aspect of the comprehensive education of the citizens of the State.

6. That the State board of education and the State advisory council on vocational education jointly sponsor one public meeting in each of the eight educational districts during fiscal year 1973 to inform members of the general public on the current status of occupational education in the State and to solicit their views concerning the current status of and future direction for occupational education.

7. Emphasis on safety practices in classrooms, shops and laboratories (and information about State and Federal laws and regulations) should be given additional attention by State staffs and teacher education institutions.

8. Continued emphasis by the State board of education (and also by the colleges and universities in the State) must be placed on the professional development of persons administering occupational education programs.

9. The State board of education should continue to encourage and emphasize business, industry, and lay citizen involvement at all levels in program development, implementation, and evaluation.

10. That a comprehensive study of professional development needs in occupational education be made, a plan for meeting these needs be developed, and increased emphasis on coordination of programs be made.

NORTH DAKOTA

Existing criteria for certification of school administrators and guidance personnel is focused on educational training and the obtaining of advanced degrees. The Council recommends to the State board for vocational education that they request the State department of public instruction to include courses in the philosophy and administration of vocational education as a requisite for certification.

The Council supports the concept of career education and recognizes that educational agencies must cooperate in the support and the implementation of the program at all levels. The Council recommends that the State board for vocational education continue its leadership developing the concept of career education, and the Council further recommends that the State board for vocational education seek the cooperation of the State department of public instruction and the board of higher education in pursuit of this effort.

The Council recommends that student activities be incorporated in all vocational programs as an integral part of the course of instruction. In addition, consideration should be given to the establishment of Vocational Industrial Clubs of America (VICA).

The Council recommends the establishment of a comprehensive evaluation plan to be carried out in 1973 to evaluate vocational programs, State, area, and local, on the basis of how adequately they are achieving their aims and objectives.

The Council recommends that the State board for vocational education develop and implement additional vocational education offerings that are meaningful, challenging, relevant and accessible for all youth and adults in rural areas through attendance centers for vocational education. It is further recommended that school districts enter into cooperative multidistrict efforts to provide this method of vocational education.

The Council recommends that the State board for vocational education be designated as the administrative and fiscal agency for title X, part B, of the Education Amendments of 1972. The Council further recommends that vocational education be equally represented on the planning commission.

OHIO

1. The Ohio State Board of Education should urge the legislature to appropriate additional matching funds for the construction of vocational facilities as mandated by the 108th General Assembly.

2. The Ohio State Board of Education should encourage school districts to coordinate the delivery of adequate supportive services. This would include items such as general health, early identification of learning disabilities, referral assistance for sight and hearing problems and emotional disorders.

3. The Ohio State Board of Education should encourage legislation to permit the maintenance allowance for special education units to be paid to point vocational school districts within the Foundation allowance.

4. The Ohio State Board of Education should continue to emphasize the necessity for and the advantages of local advisory committees to keep vocational programs and vocational guidance counseling relevant to the needs of students, labor, business, and industry. These advisory committees should be fairly representative of the community.

5. The Ohio State Board of Education should urge that all Federal funds available for all types of vocational education and/or training or retraining, be channeled through the U.S. Office of Education and its counterparts at State and local levels.

6. The Ohio State Board of Education should encourage improved planning by local boards of education for vocational programs to serve the disadvantaged and handicapped.

7. The Ohio State Board of Education should increase its promotion and encouragement of the concept of career education in Ohio schools. Increased funding should be provided by the State for the expansion of the career motivation, orientation and exploration programs, in accordance with the objectives of the State department of education as recommended by the division of vocational education. These are realistic and acceptable objectives, established to serve all youth by 1980. The Ohio State Board of Education should continue to encourage cooperation between the divisions of vocational education, guidance and testing and elementary and secondary education in the promotion of career education concept.

8. The Ohio State Board of Education should encourage legislation to eliminate the restrictions which prevent high school graduates from taking licensing examinations through programs at the high school level. This restriction is placed on high school students even though they are prepared to meet the standards for licensing by completing high school level programs.

OKLAHOMA

1. The State board for vocational-technical education should strengthen the provision for local advisory committees for vocational programs as part of the formal application for local program reimbursement; the board should require local districts to make effective use of such advisory committees during the school year 1972–73; the board should make such committees mandatory by the school year 1973–74 as part of the legal contract between the board and local districts.

2. The State board should work with the Central State University administration toward developing a department of vocational and technical education within the university, needed because of CSU's expanded teacher-training role.

Instruction at CSU for inservice personnel living off campus should be put into a 3-hour time block on evenings or Saturdays, rather than 1½-hour blocks, so that teachers will not have to drive to Edmond from over the State twice weekly.

3. The State board should strongly support a proposal developed within the division of planning, research and evaluation, to establish a 2-year pilot project on placement of vocational students, with centers at Oklahoma City and Tulsa.

4. The State board should support to the maximum possible and encourage more world of work programs in elementary grades.

5. The State legislature should amond statutes which limit school fund reserves to operational starting costs in a succeeding fiscal year, to permit accumulation of a reasonable equipment replacement fund, based upon expected life of shop and laboratory equipment.

6. The State board should exert its influence with the State board of education under the contract for guidance and counseling to secure more group counseling to offset the limited accessibility of counselors, the extraneous duties required of many counselors, and the need of students for orientation and information helpful in making individual choice of further education and/or training.

7. The State board should explore the possibility of securing retired armed service personnel with skill specialties as instructors, under temporary certification, whose second-career income would offset difficulty of securing journeymen of equal skill in view of the differential between teacher's pay and that in industry.

8. The State board, in coordination with the State department of education, should study the feasibility of obtaining a common attendance calender for area schools and schools of their affected local districts who send students to area schools, to avoid frequent disparity of one or more days in opening and closing terms and in holiday schedules. We realize this normally is a local prerogative but irregular calenders cause student hardship.

OREGON

1. The Advisory Council strongly urges the department of education to design and install a plan for systematic followup of students leaving secondary schools and community colleges in Oregon (whether by graduation or otherwise) to include identification of the reasons students leave and where they go.

2. The Advisory Council recognizes a growing need for systematic data gathering and reporting from all levels of preparation and employment in order to facilitate informed advice-giving and decisionmaking. This information should be updated at least once a year and include enrollment and job placement data from all existing programs, comprehensive needs assessment data to justify the creation of new programs, and a location listing for all present and planned occupational educational programs.

3. The Advisory Council advises the Oregon State Plan for the Administration of Vocational Education become less a compliance and more a planning document. Specifically, the advisory council recommends a State plan with the following features: (1) Precise and functional statistical information; (2) priorities clearly identified by rank ordering them; (3) goals and objectives arranged in sequential order, stated in performance terms for quantification or measurement, and subdivided into cognitive, affective, and psychomotor learnings; and (4) an overall shorter, more comprehensible, and specific plan.

4. The advisory council is cognizant that while Federal funds have steadily increased over the past two bienniums (1969–71 and 1971–73), these funds have not kept pace with the ever-increasing number of weighted students in secondary (11th and 12th grade) career cluster programs. Because the advisory council finds career cluster programs one of the most promising educational opportunities for youth in Oregon's secondary schools and recognizes that larger student enrollments go hand in hand with cluster program growth and development, the advisory council recommends that the board of education ask the State to appropriate funds sufficient to pay 50 percent of the excess cost per weighted student in the 1973–75 biennium.

5. The advisory council encourages the department of education, in its mini-report or popularized version of the State plan, to serve the Oregon public in at least three ways: (1) A simple, straightforward presentation of the goals and objectives of the State plan (arranged in sequential order and stated in performance terms); (2) a summary of enrollment and placement data for occupational education programs at the secondary and postsecondary levels; and (3) a description of the process used to plan for occupational education programs in Oregon.

6. The advisory council has found that the data used by the department of education to develop and continue occupational cluster programs is not as current as it might be. The advisory council recommends that the department of education update biennially the data used for these programs.

7. The advisory council has discovered a lack of information with reference to the record or history of career education program growth

and accomplishments to date. The advisory council recommends that the record become public information through a summary of the progress of career education programs from the Amendments Act of 1968 (Amendments to Vocational Education Act of 1963) to the present and be updated annually from 1972.

PENNSYLVANIA

1. The State board of education, in cooperation with the Bureau of Economic Development of the Pennsylvania Department of Commerce, should establish a minimum of two staff positions in the office of the State director of vocational education, responsible for assisting the PIDA and area or local industrial development groups in initiating, planning, and conducting specific training services for new and expanding ~~business and~~ industry in the Commonwealth.

2. Implement and complete within this current fiscal year, efforts to update the bureau's occupational supply and demand projection matrix in the light of new Bureau of Labor Statistics programs and the availability of 1970 census occupational data.

3. Increase the emphasis on, and funding of, pre-vocational occupational orientation, exploration, guidance, and counseling throughout the whole school system, (grades 1–12) so as to enhance the student's ability to make occupational training choices at the proper time relatively free of uninformed biases. In the junior and comprehensive senior high schools and area vocational technical schools, place greater emphasis on developing and implementing improved recruitment, selection, guidance and counseling and placement programs which will assure better matching of student aptitudes, desires, and potential capabilities, with the realities of the job market, and thus increase the chances of graduates entering the occupations they want and jobs for which they were trained. Placement programs in particular should be improved and expanded for secondary level graduates in order to lower the high rate of initial unemployment which seems to be characteristic of this group at the present depressed state of the job market.

4. Emphasis organize utilization of local general advisory and craft advisory committees and encourage local planning units to include nominal funding for the operation of advisory committees in their annual plans. Continue the development of more effective communication between the State advisory council, the office of the State director of vocational education and local advisory groups utilizing field supervisors or coordinators as liaison between these organizational units and local vocational directors.

5. The State board of education should initiate action to create representative joint committees or councils at area service levels with the responsibility to review existing and proposed vocational education programs in order to avoid unnecessary duplication and to establish coordination and articulation between secondary and postsecondary level occupational education programs in Pennsylvania.

6. Initiate special contracted studies to evaluate the effectiveness of expenditures for services rendered the bureau of vocational and

technical education by other state governmental departments and agencies, for example State office support for:

Bureau of Vocational Technical and Continuing Education.
Comptroller's Office.
Vocational Guidance.
Community Colleges.
Public Service Institute.
Curriculum and Evaluation.

and including a special study of the State level administrative approval process of local special programs and the effectiveness of these programs in meeting their objectives.

7. Continue to emphasize the importance of increasing the utilization of training stations at the secondary level, to reach as close to 100 percent as possible throughout the State. Increase flexible vocational scheduling and extended day classes to accommodate more students where additional student stations are required.

8. Investigate thoroughly the potential use of private vocational education facilities and resources, under contract, to provide vocational education for students in geographical areas of the State having limited access to area vocational-technical schools or in unique occupational offerings where contracting with privately owned facilities would be less expensive than the use or construction of public facilities.

9. Improve the timeliness of reports originating from the Vocational Education Management Information System (VEMIS), and expand the system to accommodate additional information output required for the annual evaluation of vocational education in Pennsylvania. Until this can be accomplished, the State advisory council should negotiate with the National Advisory Council on acceptance of annual evaluations based on informational data available for the prior school year in order to properly evaluate attainment of State plan objectives.

10. The State board of education (State board for vocational education) should function as a coordinating Commonwealth manpower education and training planning agency.

11. Establish a major division of occupational and continuing education within the State department of education under the leadership of a competent qualified professional vocational educator as deputy commissioner of education.

12. Continue a close follow-up of the actions taken and the results obtained in implementing the previous recommendations of the State council.

SOUTH CAROLINA

1. There is no accurate manner of determining the percentage of any given class that have completed a vocational education program by the end of the 12th grade. Some mechanism should be developed.

2. A mechanism or procedure is needed which will procedurally enter all training programs by some standard code, and on demand will compile the number of enrollees in similar programs, and print out the totals with the known annual demand. All manpower and occupational agencies in the State should participate in such a system.

3. The leadership positions of the office of vocational education, State department of education, need to be recognized and assistance given to this office through the upgrading of classified positions which will place the office of vocational education in a more competitive recruiting position for outstanding vocational education consultants and supervisors. Such reclassification should range from the directorship completely through the professional range.

4. More aggressive steps need to be taken to acquaint public school personnel—including all nonvocational—with career education concept of preparation for further education and that each student also have an employable job skill upon leaving the system, unless he or she is definitely college bound.

5. Mutually agreeable and cooperative developed procedures should be established through State level policy for opening facilities to other agencies or institutions on an equitable basis.

6. Adult education should be provided in every center that has facilities, and funds should be designated in the budget to provide these programs wherever needed.

7. Articulation/correlation of curriculum for related programs, between various types of institutions—e.g., secondary, postsecondary, MDTA, and others—should be placed high on the scale of priorities.

8. TEC industrial service representatives should meet with and discuss developments with each vocational director within their area at least every 60 days.

9. Vocational aducation and technical education should enter into a project to obtain complete and comparable data on facility utilization which would include the critical factors of: Space, time, students, classes, and cost.

10. The State department of education and the staff of the State board for technical and comprehensive education should move more aggressively to develop affirmative action plans to provide for more minority ethnic group representation in administrative positions of vocational and technical education.

From the previous year

11. "Policy should be established by each State agency which would bring together on a district or regional basis, directors of vocational centers, technical education directors, and other directors of vocational education to discuss matters of mutual concern. There should also be policies and procedures which would bring together vocational and technical instructors of the same or related subjects in common geographic areas to discuss matters of curriculum, student characteristics, need for programs, enrollments, and other related matters."

12. "The office of vocational education should annually furnish to the central TEC office a listing of local programs, student enrollments, and other pertinent data with particular emphasis on the number of students in the terminal year of each program. The State board for technical and comprehensive education office would then be responsible for forwarding these to the technical education centers."

13. "The required citizen advisory committees must be encouraged and utilized at all levels. The State administration for vocational education should vigorously support the use of advisory committees and provide moreal support and supervisory assistance in this regard to local area vocational centers and school districts. Greater use should be made of the talent available through local citizen advisory committees, to the extent of requesting the committees to accomplish annual reviews of plans and programs."

SOUTH DAKOTA

1. A broad career education concept should be integrated into all school curriculum, thereby strengthening both academic and vocational areas.

2. Further implement the multidistrict concept for secondary vocational education.

3. Expand vocational-technical opportunities for adults to receive training and retraining.

4. Improved coordinated team effort is needed between the regents of higher education, the department of public instruction, and the division of vocational education.

5. Provide returning military veterans the opportunity for high school completion, occupational exploration, and training.

6. Provide realistic training for the disadvantaged and the 11 percent of the citizens between the ages of 16 and 64 years who are disabled or handicapped.

7. Further refine and increase cooperative efforts with business and industry, utilizing community and industrial facilities as a laboratory for more effective occupational relevancy.

8. Strengthen all teacher and guidance personnel preparation through occupational orientation courses while they are in college and continue this education as an ongoing practice after they are employed.

9. Improve vocational student guidance, job placement, and graduate followup. Performance evaluation should be based on occupational standards rather than academic criteria.

10. Integrate into the curriculum the concepts of human and public relations, communications, computational skills, general business, sales and service, job responsibility, and pride of workmanship.

11. Seek and reinforce cooperative effort with all other manpower-oriented agencies, both public and private.

12. Continue to expand existing programs and initiate new programs based on manpower needs and job opportunities.

TENNESSEE

1. The council recommends that efforts be continued by the division of vocational-technical education to improve the system of data collection of job opportunities and manpower needs.

2. It is recommended that strong emphasis be continued to develop programs for the disadvantaged and handicapped at all educational levels.

3. Continued experimental effort should be directed to a more equitable timeblock of effective instruction in secondary programs with dissemination of positive and negative effects on other school systems.

4. The council recommends that continued efforts be made to provide adequate vocational guidance services by workshops, coordination of efforts with the division of instruction, and consideration be given to job placement and followup as a major part of counseling and guidance programs.

5. Continued attention should be given to the concept of career education within fiscal limitations with essential contributions made by both general and vocational educators.

6. Efforts should be continued to broaden the base of program offerings available to students. The council realizes that the funding cycle continues to be a problem in implementing new programs. Perhaps a greater degree of program expansion would be realized if local educational agencies could be informed of funds available at least by the beginning of the fiscal year.

7. It is recommended that continued emphasis be given to public awareness of vocational-technical education through publicity campaigns, community conferences, radio, newspapers, etcetera.

8. Consideration should be given to increase the program offerings in health occupations and occupational home economics.

TEXAS

Recommendation 1—Redirection of education system and career education implementation.—The council recommends:

1. That the State board of education continue its commitment to redirect the education system in Texas, continue its No. 1 priority to career education and to utilize the advisory commission on career education and other groups in supplementing the expertise of its staff in developing and implementing this redirection. That career education conferences by developing on regional and local levels to communicate the career education concept to educators and community leaders and explore strategies for implementation within the communities of this State.

2. The following actions are needed to further implement the career education model:

K–6—develop a formula and recommend funding for personnel to develop and coordinate the career awareness aspects of the model and to make provisions for curriculum materials needed for implementation.

6–9—provide leadership within the State to establish in all middle and/or junior high schools, career orientation, information investigation, and exploration for all students for the equivalent of one period per school day per year. This phase will require additional instructional personnel, guidance services, supervisory services, facilities and materials. The major effort will be the redirection of the present resources to provide meaningful educational experiences with strong emphasis on the needs of individuals in career development.

9–12—that further action be taken to enhance the comprehensiveness of educational experiences in high school to further identify career education for each individual student, * * * to the end that every student upon leaving or graduation from high school is prepared to continue further career preparation and/or have developed a skill that is salable in the job market.

13–14 and adult—these phases of the model have been addressed in recommendations VI and VIII.

3. In order to further implement the redirection of the education system, the following actions should be taken:

(*a*) Revision of curriculum guides in all disciplines to incorporate career education concepts at all levels;

(*b*) Revision of school accreditation standards to the end that the secondary school has prepared all individuals to continue further career preparation and/or have developed a skill that is salable in the job market;

(*c*) Revision of teacher preparation programs and certification in support of the career thrust of all educational experiences of all students;

(*d*) Revise formulas for the staffing of local schools to provide for guidance services throughout the educational experiences of individuals from kindergarten through adult, in keeping with their individual and group needs to include placement services in cooperation with existing placement agencies, followup of students and adjustments of programs and activities in keeping with evaluation received from former students.

Recommendation II—Suplementary delivery system for educational services.—The council recommends:

1. That the State board of education take action to support legislation to amend chapter 28 of the Texas education code to authorize area school to encompass one or more independent school districts in one or more counties of the State; that criteria for formation of such jurisdictions be the responsibility of the State board of education;

2. Jurisdictions so formed would be by a majority vote of citizens within the proposed jurisdiction, after such time the district comprising the jurisdiction would elect a board of education to administer suplementary educational activities within the jurisdicton.

3. Funds rased through taxing within each jurisdiction for capital improvement and operating would be matched by State appropriated funds.

4. The administration within the jurisdiction would be empowered to coordinate and supervise occupational education activities within the jurisdiction to provide a comprehensive resource composed of public secondary and postsecondary institutions and private schools, to the end that comprehensive preparation programs would be provided to all youth and adults of the jurisdiction in keeping with the needs of such individuals and their meaningful role in society and the economy.

5. In fulfilling its responsibility under this act, the State board of education will approve petitions for elections to form area school jurisdictions when it has been determined that the jurisdiction to

be formed can reasonably be expected to provide comprehensive preparation resources by meeting minimum standards in the areas of (a) population and/or scholastics, (b) minimum property evaluation to support the district and (c) that the district be constituted geographically and proposed facilities located in such a manner that services provided by the district are not denied citizens of the district by virtue of unreasonable distances they must travel to secure the services.

6. Provisions should be made to make services available to rural and sparsely populated areas that cannot conveniently be included in area school jurisdictions. These services can be provided through a combination of the following techniques:

(*a*) Extension Centers from jurisdictions and institutions;

(*b*) Mobile facilities;

(*c*) Itinerant instructional programs;

(*d*) Utilization of developing telecommunications systems;

(*e*) Other strategies and techniques that would make meaningful preparation programs available to the vast majority of the citizens of the State;

7. That provision be made for State support of the transportation of students for occupational training between campuses, districts and institutions.

Recommendation III—Information and data systems for planning and Management.—The council recommends:

1. That the State board of education assign top priority to the design and implementation of a supply/demand information system for Texas that will provide information as a critical part of the planning and management activties within the education system of Texas. Characteristics of the system should include the following:

(*a*) A continuing system with a stable base for collecting, analyzing and disseminating information;

(*b*) The system should have visibility involving State and local agencies, groups and organizations, both in collecting and disseminating information;

(*c*) The system should be responsive to the changes occurring in the society and economy. This will require continuous updating by use of surveys, projections, and other collecting and analyzing activities in keeping with the actual needs in the society and economy;

(*d*) The system should provide for technical assistance to users of the information;

(*e*) The information should be retrievable in a variety of configurations for utilization by school districts, standard metropolitan statistical areas, counties, planning regions, and other similar divisions;

2. The development of a retrievable data base within the State department of education for vocational education information should be accelerated to provide a valuable input into the supply/demand information system outlined above. The system should be expanded to provide information on enrollments, completions and placements by programs, and grade level; also, provide information on the followup of students for 5 years after leaving or graduation from secondary, postsecondary and adult programs.

3. The proprietary school commission should implement data gathering programs to provide information outlined in (2) above from the proprietary schools of the State.

4. That plans be made for utilization of development in teledata communications systems for timely collection, analysis and dissemination of information and data for planning and management of educational resources of the State.

Recommendation VI—Guidance Services.—The council recommends:

1. That the State board of education support action that would revise formulas and fund positions for guidance services with appropriate ratios from kindergarten through adult. The guidance services would be continuous and sequential providing maximum opportunities for meaningful decisions by the individual within the career education concept.

2. A high priority be assigned to implementing the guiding principles for the preparation of and the assignment of counselors referenced above.

3. That policies and standards be developed by the State board of education for the allocation and reallocation of all guidance and counseling units to public schools. Such policies and standards may include the following:

(*a*) Guidance personnel to be assigned to activities for which they are trained;

(*b*) Development and assignment of guidance personnel other than counselors in the area of placement, followup, labor market information, employer contacts, and similar activities.

4. That provision be made for extensive inservice education and upgrading activities for guidance service personnel presently certified and as a part of future preparation of guidance personnel to include:

(*a*) Temporary employment in the world of work;

(*b*) Appropriate summer employment with the Texas Employment Commission and other placement agencies;

(*c*) Exploratory training sessions in postsecondary institutions offering preparation for occupations;

(*d*) Employment tours and studies;

(*e*) Labor market information;

(*f*) Adult services;

(*g*) Other similar activities.

5. That the Texas Education Agency staff should utilize:

(*a*) The Texas Education Product Study;

(*b*) The present demonstration projects in the State in the area of placement and followup;

(*c*) A review of experiences, within and outside the State, of followup and placement, and

(*d*) Establish a broadly representative task force to develop a followup system for implementation throughout the State by September 1972. The system should provide comprehensive information to the local district for evaluation of educational programs, and reporting of appropriate information to the Texas Education Agency for input into the statewide planning and management of education.

6. That placement responsibilities of public education be identifiied and effective means of moving students from the education institutions into work be coordinated with existing placement resources within the communities.

7. That the Department of Occupational Education and Technology create a staff position or designate a member of the department staff to more effectively relate the concerns, activities and resources of the department in the area of guidance services in vocational education to statewide guidance services through the administrative framework of the coordinating council of guidance services of the Texas Education Agency.

Recommendation V.—Job development and support aspects of education.—The council recommends:

1. That the State board of education further develop "startup training" resources within the State, requesting discretionary funds to support this activity to bridge the gap between needs and present resources.

2. That State resources of instructional equipment and instructional manpower be identified and made available as a responsive resource to the needs of the State and its startup training responsibilities fo reconomic and industrial development within the State.

3. That discretionary funds be requested to support programs in the State to meet the needs of undereducated adults and out of school youth for occupational training, retraining and upgrading for maximum utilization of existing facilities in the communities of the State. That the Texas Education Agency staff finish the study on resources and maintain an inventory of and the extent that such resources are utilized.

Recommendation VI.—Adult Education and Services.—The council recommends:

1. That the State board of education develop and support State legislation to provide adequate educational services to all adults in the State with request for adequate appropriations to implement resulting legislation.

2. Continue its commitment to adult education and strengthen the administrative structure at the State and local levels to enhance the direction and coordination of educational experiences for adults.

3. Form a broadly representative task force at the State level, and encourage the formation of similar task forces at the local level, to examine barriers to education and employment for adults and out of school youth an dmake recommendations to educators and employers concerning the removal of such barriers. An interim report of the task force should be submitted to the State board of education during the May 1973 meeting of the board.

Recommendation VII.—Personnel Development.—The council recommends:

1. That the State board of education take the necessary action to award tenure credit for pay purposes to teachers of vocational subjects and other disciplines who have nonteaching work experiences that enhance their value in their assignment.

2. That consortium and other relationships be further developed and implemented between institutions with teacher preparation programs in order to make professional development activities of

[redacted]

such institutions readily available to teachers and as convenient to the majority as possible. That credit for such training and transfer of such credit be facilitated to the end that professional development of the highest quality utilizing the most capable personnels will be available to the maximum number of personnel.

3. That teacher training institutions and federations strengthen their working relationships with industry and employers to the end that maximum input is gained from these sources to make professional development activities realistic and current.

4. That continued emphasis be given to intensive inservice training for technical-vocational ancillary personnel to most effectively relate the local educational experiences of the individual to the needs of the community with special emphasis upon local advisory committees and labor market supply/demand information.

5. That provisions be made to utilize postsecondary institutions that prepare individuals for work in less than baccalaureate occupations to give teachers, cooordinators, counselors, and ancillary personnel exploration and upgrading experiences in a variety of preparation programs; that these resources be used by institutions with teacher preparation programs as learning and intern resources as appropriate.

6. That there be a study and review of the dichotomy between the credentialing of technical-vocational teachers at the secondary and postsecondary levels and that action be taken to rectify the differences in the approval and credential requirements and practices to the end that those being trained are best served.

Recommendations VIII.—Postsecondary Institutional Support.—The council recommends:

1. That technical-vocational programs at the postsecondary level be supported at a funding level not less than that accorded to university parallel programs in relating the level of reimbursement to the total cost.

2. That the student contact hour formula continue to be the basis for reimbursement for technical-vocational programs in postsecondary institutions, that the formula utilized for reimbursement of institutions include the following elements of instructional cost:

(*a*) General administration.
(*b*) Student services.
(*c*) General institutional expenses.
(*d*) Staff benefits.
(*e*) Instructional.
(*f*) Learning resources.

3. That discretionary funds be appropriated to the State Department of Education for utilization by postsecondary institutions, for capital investment in new high-cost programs and for the updating of equipment and redirection of high cost progrems.

4. That study and work continue on the development of a uniform cost accounting system that displays all elements of cost in technical-vocational and occupational programs in postsecondary institutions, and that such a system be implemented statewide not later than September 1974.

Recommendation IX.—Public School Occupational Planning. The council recommends:

1. That current preemployment occupational programs be coupled with cooperative part-time programs by making provisions for

(a) One hour per day instruction in an industry cluster to provide the student with introductory skills, backgrounds, etcetera, at the 9th grade level; utilizing the total instructional resources available.

(b) Preemployment laboratory experiences be provided for 2 hours per day at the 10th and 11th grade levels; and

(c) Every effort be made to place students in cooperative part-time training programs during the 12th grade.

2. That provisions be made to provide intensive occupational preparation for students desiring and planning to leave school prior to graduation.

3. That current cooperative part-time programs be developed with at least 1 year of preemployment laboratory experience prior to the cooperative experience, as appropriate.

4. That special attention continue to be given to vocational agriculture and homemaking in smaller school districts (under 3000 HS ADA) to make the programs as comprehensive as possible. Redirect the programs to become combinations with cooperative and preemployment programs when possible.

5. That consideration be given to establishment of cooperative part-time diversified occupation program units in school districts that are not of sufficient size to provide comprehensive offerings in occupational programs.

6. That recommendations made in 4 and 5 above be related to recommendations made in 11(b) in such a manner as they can complement and supplement each other to enhance the delivery of occupational preparation experiences to a maximum of students throughout the State, especially in rural and sparsely populated areas.

7. That the State board of education cause to be established an ad hoc task force broadly representative of local educators and employers throughout the State to examine present barriers to student movement from his home school to another campus, district or public/private postsecondary institution for occupational training. That the task force be directed to report its findings and recommendations for solution of problems to the State board of education not later than the May 1973 meeting of the State board.

8. That provisions be made for utilization of occupational personnel and facilities for career information, orientation and exploration when such utilization will not adversely affect the quality of occupational preparation programs.

9. That bilingual programs in vocational education be further developed and expanded in keeping with needs of the job market for workers with bilingual competencies.

10. That the special needs of programs for the handicapped and disadvantaged receive continuous review by the staff with special attention to policy, administration, program standards, facilities, inservice training of instructional AND supervisory staff members in these programs to the end that the special needs of individuals are served.

Recommendation X.—Utilization of Local Advisory Councils/Committees. The council recommends:

1. That a publication on effective organization and utilization of advisory councils/committees be developed.

2. That wide distribution be made of the above publication and that the Texas Education Agency's Department of Occupational Education and Technology staff be given inservice training in this subject, and they in turn provide technical assistance to local school districts in staff visits and evaluations; that teacher educators give special attention to this area in preparation of vocational teachers and all school administrators.

3. That local education leaders be urged to effectively utilize and support such advisory councils/committees to enhance the quality of occupational programs.

Recommendation XI.—State Plan for Vocational Education. The Council recommends:

1. That the U.S. Commissioner of Education continue periodic reviews of State plan guidelines in view of the statutes with changes that would render the State plan for vocational education an effective planning and management document.

2. That the development of the State plan involve data from local vocational plans and applications, input from the Advisory Council, information from other agencies and groups, and maximum Texas Education Agency staff visibility to further enhance the value and use of the plan.

3. That the State board of education cause a brief popularized version of the State plan to be published not later than October 15 each year that would give useful information to those interested in and involved in technical-vocational education in the State, to include:

(*a*) Summary of the State plan sections of broad interest, with appropriate reference to the basic document;

(*b*) Data on who and how many are now being served;

(*c*) Unmet needs documented by target groups;

(*d*) Projections as to number of persons at the various levels that are not being served and what resources would be required to meet such needs;

(*e*) That information contained in (b)–(d) above be compiled for the State and not restricted to programs reimbursed from Federal sources.

UTAH

1. The State Legislature should increase the funding allocated to vocational-technical education in the secondary schools so that career education goals can be realistically achieved.

2. The State Legislature, the board for vocational education and the Board of Higher Education should continue to review the total funding for postsecondary education to meet the demands of students for vocational-technical education and to more nearly relate education output with job opportunities.

3. The State board for vocational education should review the allocation of Federal funds between secondary education and postsecondary education and consider changing the present formula if it is determined that Federal funds do, in fact, supplant rather than supplement State funds.

4. The State board for vocational education, in relation to their position paper on career education, should develop an implementation plan with specific measurable objectives and target dates.

5. The State board for vocational education should review the status of the Bridgerland, Sevier Valley, and Uintah Basin Vocational Centers and their relationship to the several local school districts and the postsecondary institutions involved, especially concerning funding problems, and take the necessary steps to make these centers more available and useful to students in the local areas.

6. The board of higher education should review their building priorities so as to give immediate support for the planning and development of both the Orem campus for the technical college and the career center for the College of Eastern Utah; and the Legislature should provide funding so that the campus in Orem can be planned and developed in its entirety and the career center at price can be build.

7. Each of the local school districts should develop a vocational education plan which includes measurable objectives following the guidelines provided by the State plan.

8. Articulation of students between high schools and postsecondary vocational institutions should be dramatically improved so that more students will be encouraged to continue their job preparation and to better utilize their time and money.

9. New vocational program offerings should be designed to articulate with existing institutional programs in the same or related field so as to implement the career ladder concept which enables students to more easily move from one occupation to another as they continue their training and work experience.

VERMONT

A. The State advisory council for vocational-technical education finds the joint agreements developed in compliance with act 28 concerning advisory committees are not being carried out effectively and are, therefore, recommending the following:

1. That the responsibility for appointing and implementing local administrative advisory committees be defined in a more explicit manner by the State board of education.

2. That special emphasis be placed on participation of school board members, partciularly from sending schools.

The survey revealed that sending school district boards are apt to have far less representation and participation.

3. That the State plan clarify the responsibilities of these administrative advisory committees.

4. That the local annual report contain summary of activities for this committee as well as a listing of recommendations sent to area center school board.

5. That a procedure for submission of and reaction to recommendations from the local administrative advisory committee to the area center school board be developed.

As the responsibility for school operations rests with school boards, it would seem only appropriate that coordination of school calendar, establishing or eliminating programs, establishment of tuition rates, and other important issues should not be decided on until regional implications are known by the board.

6. That a review of present policies dealing with local advisory committees be conducted with the purpose of eliminating unnecessary committees.

B. The council studied figures from the last 4 years and arrived at the conclusion that generally no significant adjustments are made when shared-time enrollment increases. Further, the council showed by examples using average figures that under existing State funding policies, vocational education should not result in additional cost to local districts.

A second area of fiscal concern dealt with comparing per-pupil cost in similar programs at different vocational centers.

Specific recommendations for part II 'study of financial priorities relative to vocational education in Vermont):

1. That State financial support for vocational tuition and transportation be maintained at present levels so that school districts may enroll students in area vocational programs without added costs, thus making vocational education equally available to all pupils.

2. That in instances where cost is used as a reason for restricting or not encouraging more participation in vocational education a closer and more accurate evaluation be made of conditions to identify legitimate cost and means to adjust staff and program so that student needs may be met.

3. That in restructuring the funding formula, care be taken to incorporate into this formula a factor which would encourage a more equal expenditure for budget items of unfixed nature (i.e., instructional supplies, new equipment, replacement of equipment, maintenance of equipment, etc.).

4. That information gleaned from this study be used as a basis for a more in-depth study by the council to better identify equality among programs.

VIRGINIA

1. Because the council believes that job placement and periodic follow-up is essential in determining the relevance of the program of vocational/technical education to the world of work, it strongly recommends that the facilities of the emerging vocational education reporting system be employed to effectuate job placement and periodic follow-up and that this aspect of the vocational education program be accepted as an administrative responsibility by the highest authority at local and State levels.

2. In view of the potentially great benefits to be derived from local advisory input, it is recommended that the State department of vocational education be urged to encourage the development of local division-wide, discipline-wide, and occupational trade and craft advisory committees which will meet for active consideration of plans, programs, and progress on a reasonable periodic schedule. The organization and operation of such bodies will establish operating procedures according to adopted guidelines.

3. The imperative educational need is for a program of career awareness, orientation, exploration, and job preparation for K–12. Effective implementation of this recommendation will require vali-

dation of content and procedures as developed in the ongoing experimental models, career oriented teaching staff, and guidance counselors. Availability of acceptable staff competence will relate to teacher-counselor education programs. Implementation of this objective is urged at the earliest possible time.

4. Whereas there is a wide gap between the numbers enrolled in vocational classes in the high schools, 336,380, and those participating in the cooperative programs, 23,060, the council urges further consideration of and greater efforts to involve more students in their terminal school years in on-the-job programs.

5. In consequence of the rapidly growing emphasis on career/vocational education and the resulting increases in enrollments in vocational education, the council strongly recommends that efforts be made to encourage the State department of education and the State legislature to appropriate larger funds for vocational education so as to more adequately meet the needs as reflected in the steadily increasing number of persons requiring the additional services with the particular reference to the needs at the post-secondary level.

6. The State department will take the necessary steps to perfect the Vocational Education Evaluation Project (VPISU) and its vocational education reporting system (VERS) with all appropriate measures and supply the local school division, teacher education institptions, the State advisory council on vocational education, the State board of education, the State department of community colleges and other educationally related persons and organizations with the findings at appropriate time intervals.

7. The leadership of the council is urged to work in close cooperation with the State director's staff in compiling a significant amount of information from the employers of occupationally prepared graduates and job-ready school leavers to serve as a reliable measure of the effectiveness of the instructional program. Such information is to be gathered through personal interview and/or questionnaire procedure.

8. The advisory council on vocational education strongly recommends that the current cooperative arrangement among the several State agencies concerned with the preparation, placement, and long term employment of persons be continued and improved by coordinated efforts through intrapersonnel arrangements.

WASHINGTON

1. The legislature should direct the coordinating council on occupational education to develop and implement a more effective information system which centralizes and standardizes the information required for planning, coordinating and evaluating the total vocational education effort in the State.

2. The coordinating council for occupational education should implement a vocational graduate follow-up survey with certain common information to be collected by all public vocational delivery systems.

3. The coordinating council for occupational education should examine the feasibility of an employer-based followup system.

4. The coordinating council for occupational education should assign high priority to the development of evaluation systems for vocational education programs.

5. The coordinating council for occupational education should publish the results of research and exemplary projects and should see that all school districts and interested educational institutions are informed regrading these projects.

6. The coordinating council for occupational education should assign a high priority of staff and funding for the field testing, refinement, and expansion of its present efforts to relate manpower requirements to vocational education.

7. The State board of education and the coordinating council for occupational education should include within their respective certification requirements of all teachers an exhibited competence in the following:

a. Orientation to the "world of work" and concepts of career education.

b. Counseling and guidance skills with career emphasis.

8. The coordinating council for occupational education and the office of the superintendent of public instruction should take steps to expand Project WAVE (what about vocational education) so that it is available to all teachers and counselors in the State of Washington.

9. The coordinating council for occupational education should design and conduct special workshops in vocational education and career education concepts for school directors, trustees, and administrators in all delivery systems.

10. The State board of education should include within its existing occupational education requirements substantial attention to the development of good work attitudes and habits and human relations skills required in the working world.

11. The State board of education and the State board of community college education should see that good attitudes and habits and human relations skills are given increased emphasis in the vocational training programs under their jurisdiction.

12. The cooperative and work study models for occupational education should be given real encouragement in overall funding patterns and special effort should be made to expand this on-the-job experience model for vocational training.

13. The coordinating council for occupational education should plan and conduct employer conferences involving management, labor and vocational educators to explore meaningful ways to expand on-the-job training experiences.

14. In conformance with PL 92–318, the legislature should create a postsecondary education commission with membership broadly representative of the general public and all major elements of postsecondary education in the State. At the appropriate time the advisory council on vocational education will make recommendations regarding this commission.

15. The legislature should mandate a study of State level organization of vocational education to be made within 1 year after the creation of the postsecondary education commission. The study

should be conducted by the State advisory council on vocational education.

16. The State advisory council on vocational education endorses, in general, the recommendations made in the report on SCR-2 by the superintendent of public instruction dated September 7, 1972.

17. The coordinating council for occupational education should spearhead efforts to maximize use of vocational education school facilities.

18. The coordinating council for occupational education should establish ongoing communications with training groups within business, industry and labor.

19. The coordinating council for occupational education should place more emphasis on studying counseling and guidance in our schools.

20. The coordinating council for occupational education should initiate a study of the effectiveness of local advisory committees as a followup to changes in State plan regulations on advisory committees.

WEST VIRGINIA

The board of education should urge counties to adopt countywide scheduling of school classes which will provide better accommodation between the receiving vocational schools and sending schools. In those areas where multicounty areas are served by a vocational center, all counties served should coordinate their scheduling. The division of vocational education should make coordinated scheduling a condition for the use of Federal funds for any current or planned construction.

Beginning with fiscal year 1975, no Federal funds should be approved for vocational school construction until the county or counties certify that they have, to the best of their ability, coordinate the scheduling of their academic and vocational programs and their curricular and extra-curricular activities.

No students should be denied the opportunity to participate in a vocational program or activity because of a scheduling handicap.

The division of vocational education should take responsibility for developing appropriate criteria for the selection of students for vocational program attendance, in coordination with representatives from vocational schools and regular high schools. These criteria should consider a student's desire to enter and indeed his potential to complete a vocational program.

Since all students must successfully complete specified academic units to receive a high school diploma, their decision to enroll in a vocational program makes them responsible for additional work beyond their academic requirements.

The State board of education should reexamine salary levels within the division of vocational education and adjust them as necessary to be commensurate with responsibilities at the State level, and sufficiently high to assure attracting and keeping the best qualified personnel available for these positions.

The bureau of vocational-technical and adult education should develop a staff position for a public information specialist.

The bureau should study the cost of a complete statewide public information program to include films, tapes, slides, and printed material together with recruitment materials to help educate and attract potential vocational students.

This program and budget should then be presented to the State board of education for review and approval. If funds are limited or unavailable, the bureau should then be encouraged to seek private, corporate or foundation funds to underwrite this PI program.

In either case, the council recommends the immediate creation of this position and program.

Funds should be appropriated to provide travel for bureau personnel to review outstanding educational programs throughout the country.

This travel allocation should be the outgrowth of a coordinated, comprehensive and well planned review of appropriate programs to be studied. A few of the programs to be considered could be the four career education models, the skyline career center, business, industry, education cooperative education programs, and comprehensive community school facilities.

A program of vocational exploration should be initiated in the 9th and 10th grades. Hopefully career education will help solve some of these problems, but the full-blown career education program is not yet available to all West Virginia students.

We further recommend that the bureau of vocational-technical and adult education work with the LEA's to stimulate the further development of cooperative education programs.

A student's educational opportunities should not be so restrictive that this decision to become employed automatically precipitates his dropping out of school.

The bureau of vocational-technical and adult education, in cooperation with the State department of education, should present the West Virginia Legislature with an informational program designed to clearly update legislators with the impending growing pains.

This presentation needs to be coupled with a strong, objective recommendation for the legislators to review their educational funding priorities and to accept the State department's recommendation for an allocation of additional funds for program development and program maintenance.

The Bureau must maintain a leadership role in encouraging the legislature to realistically appropriate funds more in line with the educational needs of West Virginia.

WISCONSIN

1. Greater emphasis should be placed on the role of continuing education in the upgrading of skills of the health worker throughout the State of Wisconsin.

2. A more creative and coordinated approach should be adopted in the recruitment and certification of health occupations instructional staff.

3. Health occupations instructors should take a more active role in the inservice programs or staff meetings held in the various clinical facilities within the State and their districts. Opportunities to participate and teach at the meetings may prove reciprocally

beneficial. The opportunity is also present for an interchange of instructor and agency clinicians periodically.

4. The State staff should work with colleges and universities of Wisconsin to provide more flexible programs to enable present and potential teachers and staff to acquire degrees and meet other credentialing requirements.

5. A job-clearing house should be established so that districts with a shortage of personnel and or faculty can make their needs known in areas where training programs exist.

6. The staff of the State Board of Vocational, Technical and Adult Education should compile a semiannual calendar (event list) for health occupations faculty, listing available workshops, seminars, conferences, etc. sponsored by such agencies and organizations as the WBVTAE., Wisconsin Hospital Association, Wisconsin Nursing Home Association, professional organizations, etc. for dissemination to district directors, health occupations faculty, hospital and nursing home administrators, and other interested individuals.

7. The need for improved emergency services, particularly in rural areas, should be met by vocational district development of emergency care training courses. Training should be available for ambulance operators, emergency room staff, police and sheriff department personnel, and firemen who are providing services either as regular employees or volunteers.

8. Training programs that prepare health aids and assistants should be available in all vocational districts as dictated by demand, particularly in the rural areas. This should include preparatory programs for new workers as well as extension programs for workers tained on the job, and should include especially nursing assistants, food service workers, housekeeping aides, activity aides, ward clerks, physical therapy aides, and occupational therapy aides.

9. The personnel of the State board of vocational, technical and adult education staff and of the districts should join in experimenting with present strategies and in seeking new means for developing clinical affiliations.

10. The controversial issue whether the health occupation programs at the secondary school level should be limited to the exploratory rather than preparatory dimension should be resolved.

11. The following recommendation of the U.S. Department of Health, Education and Welfare should be implemented in Wisconsin:

> * * * the development of meaningful equivalency and proficiency examinations appropriate categories of health personnel for entry into educational programs and occupational positions. The States are called upon to assist in the implementation of this effort by amending licensing laws, where necessary, that will recognize such examinations for purposes of granting advanced educational or job placement. Educational institutions accrediting agencies, and certifying bodies are asked to continue to formulate programs that accept alternatives to formal education for entry into career fields.

12. A continuing followup evaluation of the high school students enrolled in high school health occupation classes who pursued further training should be conducted. Such information is valuable to increasing program effectiveness and quality.

13. A new section, health occupations education, should be implemented in the bureau of career and manpower development at the department of public instruction.

14. A high priority of the State board of vocational, technical and adult education leadership should be given in assisting districts in complying with proposal development guidelines and to assisting them in implementing new programs.

15. The staff of the State board of vocational, technical and adult education should consider the development of a curriculum resource center for use by their staff and district staffs.

16. The Wisconsin Board of Vocational, Technical and Adult Education, in cooperation with the districts in the State, should develop standardized manpower needs study forms so that future manpower projections of districts speak to a common format, and thus lend credence to cross-district examination.

17. Slot in (entry with advanced standing) mechanisms might be more effectively used, especially in longer programs.

18. Agencies and organizations should be encouraged to redefine their districts in such a way as to coincide with State administrative districts to facilitate communication and reduce overlap and conflict and minimize paperwork.

19. All licensing, certifying, and professional organizations should make their membership lists available to dependable agencies so that health workers might be identified more easily.

20. The State board of vocational, technical and adult education should encourage expansion of involvement of educators from university centers. Students should be permitted to do their internship programs for the Bachelor's degree in vocational schools.

21. Earmarked State vocational education funds should be made available o na top priority basis for the support of programs and services for the disadvantaged and handicapped.

22. Specific State funds should be appropriated for vocational education programs at the secondary level to promote the much needed expansion of programs for handicapped and disadvantaged students.

23. Each district should establish local priorities and program commitments to effectively serve the needs of its handicapped and disadvantaged students.

24. Needed supportive services, facilties, and curricular modifications should be provided to handicapped and disadvantaged students to enable them to succeed in regular vocational education programs in keeping with the intent of the 1968 amendments.

25. Articulation between the department of public instruction and the State board should be increased to insure that vocational programing for handicapped and disadvantaged students is continuous and meaningful.

26. Sufficient funds should be included in the budget of the State board and the department of public instruction to allow vocational education consultants to fulfill their responsibilities toward schools with vocational programs for the handicapped and disadvantaged.

27. Secondary programs for the disadvantaged should be carefully evaluated to assure that students will continue to receive the additional services they need to help them succeed in rgular vocational programs.

28. The State board and the division of vocational rehabilitation should assign a staff specialist to maintain liaison and implement

programs and services required for the disadvantaged and the handicapped.

29. Efforts should be made to insure a comprehensive program is developed and that the project method enhances the delivery of services to persons with special needs.

30. Communication between all levels of personnel involved in offering vocational programs to the disadvantaged and handicapped should be continual and expanded through (1) inservice training, (2) dissemination of information about special programs to both secondary and postsecondary schools, and (3) dissemination of the results of research exemplary programs.

31. Guidelines should be established relative to the qualifications of teachers who work with the handicapped and disadvantaged.

32. The use of indigenous, nonprofessionals to increase the identification, recruitment, and outreach of vocational programs into the community should be continued and expanded.

33. Secondary and postsecondary schools should actively help disadvantaged and handicapped students find employment in their communities.

34. The State board and the department of public instruction, in light of the recent critical report by the national advisory council on counseling and guidance, should review and strengthen its vocational counseling and guidance programs for members of minority populations, for handicapped persons, for adults, for correctional institution inmates, and for veterans.

35. The handicapped and disadvantaged should be properly considered in the development of career education programs in Wisconsin.

36. The newly developing postsecondary computer based reporting system for handicapped and disadvantaged students enrolled in Federal projects should receive the full support of the State board for its earliest possible implementation and expansion.

37. Further studies should be undertaken to provide a more in-depth understanding of the role of Wisconsin's vocational, technical, and adult education system in delivering programs to persons with special needs.

38. Wisconsin's significant and encouraging growth in vocational programs for persons with special needs should be make known to all citizens of the State to encourage their active participation and support.

PUERTO RICO

1. The advisory council recommends to the VTE Administration the reinforcement of the research and curriculum Unit with the necessary professional personnel, and furthermore, the provisions be made in the budget for the accomplishment of its operation.

2. Concerning the career education program, the advisory council recommends the VTE Administration:

a. Secure consultative services for an appraisal of the projects in career education, so that definite approaches might be selected to deal with the problem in Puerto Rico. These services may include industry people to determine the effectiveness of the projects; and *b*. In the meantime, take some steps to face actual conditions, such as to provide broader attention to the elementary level students in the career education projects, and expand the course on introduction to occupations to all school districts.

3. The advisory council strongly recommends that provisions be made with industry to have more VTE instructors and counselors attend summer sessions working in industry as a definite way to acquaint themselves with the latest processes and working conditions of the new technology, and with the impact of industry for career awareness in students.

4. The advisory council feels that the Secretary of Education and the board for vocational education, as well as the State board of education and the Governor of Puerto Rico, may utilize to a greater extent the potentials of the advisory council in establishing public policies when it refers to the development of occupational education in Puerto Rico.

5. The advisory council, in relation to the collection of data for planning and evaluation purposes, recommends that the VTE Administration:

a. Accelerate the implementation of the VTE information system in such a way that the VTE programs may have the basic information available for fiscal year 1973–74 planning and evaluation;

b. Verify and update the information collected by the system, periodically, thereafter.

6. The advisory council, in relation to indicators that may show the VTE programs are meeting the needs of the students and of manpower, recommends the VTE Administration:

a. Consider the conclusions reached in the analysis of "manpower needs" and "Census of Manufacturers," reports made by the Department of Labor, in planning for next year's vocational offerings and services;

b. The advisory council reiterates the recommendations made last year, in the sense that students may have at least a semester work experience in industry. This year, specific emphasis is placed on fostering still more the cooperative programs with industry for the training of production workers.

7. The advisory council wants to emphasize to the VTE Administration, in relation to the development and accomplishment of the plans set forth, that:

a. The degree of consistency between what is planned and what is produced or achieved is a sound indication of the quality of planning and the quality of accomplishments. Projections and forecasting of program achievement and clearly stated goals, objectives and priorities set forth in the planning process serve the administration to implement them effectively.

b. The implementation of new programs and the expansion and continuation of existing one should be based on appropriate profiles which satisfy the needs ascertained from an effective evaluation, with a systematic basis.

1. A thorough analysis of all present and potential vocational education facilities to enable optimum program development and utilization.

2. Promotion by the State Department of Education of new vocational education programs in the comprehensive high schools of the State with special emphasis on the development of programs related to the career fields of public and personal services.

3. An aggressive campaign by local school administrators and guidance counselors to inform parents and youngsters in all communities about the opportunitties in the area vocational schools.

4. Continuation of the advisory council's statewide vocational educational public information campaign with special emphasis on informing returning veterans about training opportunities.

5. A review by the State department of education and the advisory council of the impact on vocational education in the state caused by the reorganization of the department (to be completed by June 30, 1973).

6. Completion of the vocational education management information systems (MIS) to enable more effective program analysis and decisionmaking.

7. Integration of the vocational education MIS with the State's other economic data systems to better coordinate manpower and industrial development.

8. More frequent and better coordinated manpower development planning led by the department of education and involving industry, labor, manpower training agencies, and other appropriate departments of State government.

9. Designation of the State's correctional facilities—juvenile and adult—as a school system to enable increased State and Federal educational aid and to attract attention to the importance of education in the rehabilitation of inmates.

10. Appointment of a full-time coordinator of educational programs in the proposed correctional "school system" with the position to be equal in status and compensation to most superintendents of schools in the State.

11. A thorough analysis of the educational (especially vocational) needs of correctional institution inmates; and the design of individualized self-paced instructional programs using work release when appropriate.

12. Definition of the term "disadvantaged" by the State department of education so as to give particular emphasis to problems of poverty and prejudice.

13. Continuation of the State Department's campaign to recruit and retain black and other minority group professional staff.

14. Continuation of the State Department's promotion of career education and the establishment of a technical assistance service to local educational agencies interested in developing programs.

TRUST TERRITORY OF THE PACIFIC ISLANDS

1. There is an urgent need for a study of the manpower requirements in each district of the Trust Territory to determine the job opportunities which will be available in the next 5 to 10 years. From such an occupational analysis we can determine what vocational subject should be emphasized in school and in adult education programs.

Such a study was initiated by the Manpower Advisory Council in 1970. Every effort should be made to complete this study. If it should become evident that this particular study cannot be completed, a new survey should be undertaken as soon as possible. A reliable manpower survey should occupy top priority for the development of vocational programs in the Trust Territory.

Along the same lines a study should be made of the extent to which vocational school graduates are being employed in the field for which they were trained.

2. Even without a manpower survey, certain training needs seem immediately evident.

a. There is an urgent need for well-trained clerical workers. A quality vocational program for clerical workers should be offered at each of the district center high schools in the Trust Territory.

b. There is an urgent need for competent workers in business management. Micronesia desperately needs a stronger economic base. Successful private businesses are essential. Every district center high school should offer a solid vocational business management program.

3. Greater effort should be made to expand the adult basic education program throughout the Trust Territory. Emphasis in adult education is needed in the area of business management training.

4. There is a need for more cooperative education programs which would allow high school students to become involved in the world of work. Teachers should be trained in methods of locating job stations with the Government and private sector and in developing programs of related instruction at the school which would be closely integrated with the cooperative education work experience.

Efforts should be made at the Headquarters Education Department and Personnel Department to plan a cooperative inservice education program whereby the various Government agencies might train their personnel at MOC, PATS, or other vocational institutions in the Trust Territory.

5. A greater effort must be made to improve the vocational guidance programs throughout the Trust Territory. Some form of vocational guidance starting in the earlier grades is desirable. The high school vocational guidance programs must be based more on the actual needs and opportunities in Micronesia. The followup program for placing graduates of vocational programs must be strengthened.

6. Every effort must be made to speed up the time it takes to process papers in the Personnel Department for the hiring of vocational teachers. It appears that the personnel office in some instances is making administrative decisions that should be made by education administrators. It would not seem to be the role of the personnel department to decide if and when new positions are necessary. The complaints against the Personnel Department are very loud and very frequent. It is essential to the efficient operation of all Government educational program that this problem be investigated and a solution found as soon as possible.

7. Attention should be given to the long time that it takes to process requisitions for supply and equipment at the various schools. Many schools seem to lack the material resources essential to vocational training. The difficulty is not simply inadequate funding.

Some effort should be made to make more efficient the procedures for ordering materials and supplies for educational programs.

8. Many of the new school buildings are being designed so that it is impossible for local construction companies to build them. Efforts should be made by the architects on Saipan to adapt their building design to local resources. This would provide more job opportunities for our vocational graduates and would increase the opportunity for cooperative education training programs in building construction. Although it might take longer to erect the buildings, the community would play a greater role in their construction and would take more pride in their schools. It is hard to see why foreign construction companies should be necessary for building schools in Micronesia.

9. Attention should be given to clarifying the role and responsibility of the District Vocational Education Supervisor. Apparently, there has been some misunderstandings on the part of local schools and businesses as to the role of the DVES. A clear job description should be developed and his relationship with the district high schools, elementary schools and local businesses should be made clear to all involved.

Every effort should be made to replace the present District Vocational Education Supervisors with well-trained Micronesians who would be more familiar with the local customs and culture, and who would be more effective in developing educational programs at the local district level.

10. Territory-wide recruitment of vocational teachers for inter-district programs such as MOC is a wise policy and should be continued. Administrative personnel at the district level should be encouraged to share their best teachers with MOC and other inter-district vocational schools.

11. Further investigation should be made of the possibility of developing an associate in science degree program for vocational teachers in Micronesia. It is recommended that the administrative personnel of MOC, CCM, and PATS explore this question as soon as possible.

12. A long-range program should be developed for both CCM with relation to the role each will assume in providing vocational education services.

Attention should be given by CCM staff and district inservice teacher trianing staff to developing a career awareness component in the elementary teacher education program.

13. Vocational education programs cannot possibly be supported entirely by the funds coming from the Vocational Education Act of 1968. If vocational education is to achieve meaningful results in Micronesia, more money will have to be expended in this direction. These funds should come from the general educational budget. We recommend that in addition to the budget categories of administration, elementary education, and secondary education, there would be added a separate category of vocational education.

14. Priority attention should be given to the full implementation of the organizational pattern necessary to establish a recognized district adult, vocational, and higher education division with the position of the district curriculum supervisor for adult, vocational,

and higher education established to administer and supervise the division.

A tremendous program expansion has occurred during the past year in the area of adult, vocational, prevocational, manpower, and higher education. It is unreasonable to expect one district vocational education coordinator and one district adult basic education coordinator to continue coordination of an entire program administered by the headquarters adult, vocational, and higher education division staff.

15. An implementation model for career education should be pursued by personnel from the division of adult, vocational, and higher education and the division of elementary and secondary education. The Career Education Model should reflect the educational, political, social, and economic developmental needs of the Trust Territory. Every governmental department and agency should be involved in developing such a model.

16. Every effort must be made to fully implement the curriculum policy statement for Micronesial Vocational Education. The policy statement serves as an umbrella for all areas of vocational education in the Trust Territory.

Area statements in the several vocational education subject matter areas should be fully stated, e.g., vocational business education, agriculture education, trades and industrial education, vocational home economics, consumer and homemaking education, and aquaculture education. The area policy statements developed during the Third Annual Adult and Vocational Education Conference need further discussion.

B. PREVIOUS YEARS' RECOMMENDATIONS AND ACTION TAKEN BY STATE BOARDS AND STATE DEPARTMENTS OF EDUCATION

TO WHAT EXTENT HAVE STATE ADVISORY COUNCIL ON VOCATIONAL EDUCATION RECOMMENDATIONS BEEN ACCEPTED AND IMPLEMENTED BY THE STATE BOARDS OF VOCATIONAL EDUCATION?

ALABAMA

The annual evaluation report of the State advisory council may be accompanied by such comments of the State board as it deems appropriate. The recommendations of the State advisory council shall be considered by the State board in developing the State plan for the ensuing year. Response in writing to each recommendation shall accompany the State plan and may include, among other matters, the results of evaluations by the State board of programs, services, and activities which support, supplement, or differ with the evaluation results of the State advisory council.

Observation

1. *To whom were recommendations made during the 1971 fiscal year?*[1]

The council made 28 recommendations in its 1971 evaluation report to the State board. On April 12, 1972, the council also submitted a special report to the State board which contained an additonal six recommendations.

2. *What actions have been taken and to what extent have these actions fulfilled the intent of the recommendations?*

The six recommendations made in the special report have been included or incorporated as recommendations in this evaluation report.

Listed below by council advisement categories are the recommendations made by the council for 1972 in its 1971 evaluation report.

State Planning

1. The board should clearly state in part III of the State plan the *annual program objectives*, rank order priorities and procedures for implementing the plan. *Objectives should be stated in measurable terms* for each occupational area by program levels and target groups, and made available to local boards of education, technical institutes, and junior colleges for local level planning.

2. The board should *design, develop* and implement by the end of the 1972 fiscal year a functional regional and state comprehensive manpower demand and *supply information system for planning and programing vocational education.*

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[1] The recommendations in italics are those requiring administrative action or policy development by the State Board.

3. The board should *design, develop* and implement by the end of the *1973 fiscal year a functional computerized management information system for vocational education.*

4. *The board should design a systematic method (format) for reporting program information in part III of the State plan so that information will be comparable from year to year.*

5. *The board should develop an annual time schedule for the review and revision of the State plan so that the plan can be reviewed by the advisory council on vocational education and other State agencies as required by the Intergovernmental Cooperation Act (Public Law 90–577).*

6. *The board should intensify and expand its efforts to develop a State plan which encourages local boards of education to assume the responsibility of preparing high school students for employment by providing a wide variety of vocational education opportunities.*

7. The board should establish during the 1972 fiscal year a functional task force consisting of vocational educators and State employment service personnel to study the manpower demand and supply functions under the cooperative agreement.

8. The board should establish during the 1972 fiscal year a functional task force to study the job bank activities of the State employment services.

9. The board should intensify and expand its efforts in state interagency planning and coordination so that those resources already available in the State can be used effectively and efficiently to deliver the educational and related services to the youth and adults when needed.

10. *The board should intensify and expand vocational education planning and programing by establishing a State level planning and evaluation unit. The unit should be an independent entity within the department's vocational division.*

Programs, Services, and Activities

11. The board should establish during the 1972 fiscal year a functional task force to develop curriculum guidelines for occupational awareness and orientation programs for elementary school education.

12. The board should intensify and expand its effort in providing more vocational adult education programs.

13. The board should make a concerted effort to impress on school administrators and vocational teachers the need for local advisory councils.

14. The board should develop special guidelines and provide consultant services to local boards of education for the effective use of advisory councils on vocational education.

15. The board should intensify and expand its efforts to encourage local boards of education and vocational technical institutes to employ vocational counselors.

16. The board should intensify and expand its efforts to encourage local boards of education to employ qualified full-time or part-time local directors of vocational education.

The extent of action taken to fulfill the recommendations made for the 1973 and 1974 fiscal years in the 1971 evaluation report will be included in the annual evaluation reports for the respective years.

Observation

3. *What factors influenced the success or failure of the implementation of the council recommendations?*

No attempt has been made by the council to determine to what degree its recommendations have met with success or failure. It has been noted elsewhere in this report that several recommendations have been either completely or partially implemented while others are under study.

It is difficult in a complex statewide educational program, with its social and economic constraints, to isolate specific factors which impede or facilitate program change.

Observation

4. *What follow-through is being maintained by the council?*

The responsibility for giving due consideration and subsequent implementation of the council's recommendations rests with the division of vocational-technical and higher education. The council will continue to follow the official administrative channel in processing its recommendations to the State Board of Education.

In addition to utilizing the normal administrative procedure the council will work cooperatively with the division of vocational-technical and higher education by providing technical assistance, and using the division staff as consultants for council committee functions.

The council would appreciate the courtesy of both oral and written reactions to its recommendations at intervals during the year. It would also appreciate receiving copies of publications, proposals, reports and copies of blanket memorandums forwarded to the educational agencies and institutions in the State if they are related to the council's recommendations and/or its mandated functions and responsibilities.

The council feels that the above procedures will increase the efficiency of its staff and committee functions, and will also provide the needed mechanism for better communication and the sharing of program information.

ALASKA

The suggestions offered in this section are submitted in light of the findings described in section II of this report, and are aimed at relieving some of the pressures which confront vocational education efforts on a statewide basis.

1. It is strongly suggested that vocational education goals and objectives be clearly formulated and articulated at the State and the local school district levels, and that definitive guidelines be developed in order to insure achievement of stated goals and objectives.

2. In light of the philosophical and procedural inconsistencies described in the previous section of this report, it would appear advisable for the State division of vocational education to undertake a stronger role in the planning, development and followup of

vocational education programs at the individual school district level. The division has so far maintained a staff role relationship with the school districts within the State. It is apparent that in order to fully develop vocational education to a point where it can be truly recognized as viable, a central coordinating force must exercise, especially at the outset, a more extensive degree of leadership than the division has been able to exercise. It is therefore our recommendation that the division be placed in a position of more effectively monitoring vocational education efforts throughout the entire State. This authority should extend beyond the secondary level into postsecondary vocational education programs at the community college level. Along with this monitoring authority, the division should also be held responsible for the progress, or lack thereof, of vocational education in the State of Alaska.

3. Coordinated efforts should be made to institute an effective followup system on high school graduates in order to objectively determine the benefit derived by each of the students from exposure to vocational training at the high school level. This is an effort that, in the long run, will yield more benefit than any other recommendation that could be made at this time, since it will enable program administrators to effectively determine which of the programs are the most viable and will allow them to concentrate their resources on those programs which yield the highest results.

4. It is strongly suggested that coordinated efforts relative to program and offering development between school districts and correspondent community colleges be further enhanced in order to provide upward progression in the area of vocational education in those localities where such facilities are available.

5. It is suggested that specialized vocational counseling be emphasized at the junior high and the senior high school levels in order to provide counseling opportunities to the students who choose not to pursue an academic career.

6. A definite attempt should be made to more closely integrate vocational and special education efforts in order to provide physically handicapped children with the opportunity to develop a viable skill which will enable them to gainfully enter the job stream at a future date.

7. Serious consideration should be devoted to the restructuring of the existing foundation support formula in order to eliminate or minimize the inherent discrepancies which exist in the present formula. Although it is not our intent to indicate that all or most vocational education problems in medium sized and large districts can be solved by making additional resources available to them, it is evident that the existing foundation support formula does not allow these districts the equal opportunity which is afforded to the smaller districts.

We would again, at this point, express our appreciation to the members of the State department of education and to the individual staff members of the eight school districts we visited during our survey for their cooperation and support during the course of the study.

ARIZONA

Evaluation of Consideration Given Fiscal Year 1971 Recommendations

The division of vocational education accepted many of the recommendations made in the 1971 report. Although not all the problems cited in the recommendations have been solved, a significant advancement has been made toward the solution to many of these recommendations.

Recommendation 1: "That the transition to career education will respond to the needs of all the people, be accelerated by the State board of education, the U.S. Commissioner of Education, and the Division of Vocational-Technical Education in the U.S. Office of Education. Further, that the State board of education review its organizational structure to allow the concept of career education increased visibility and importance."

Response—Career education has been given an emphasis in the department of education in Arizona. Thirteen pilot career education projects were begun in Arizona in 1971–72. These 13 projects include the following:

1. Career orientation through teacher involvement in Cochise County.
2. Coconino County career education program.
3. Westside area career occupations program, known as WACOP in Maricopa County.
4. A television experimental program at the Bureau of Broadcasting, Arizona State University, Tempe.
5. The comprehensive career education model at the Mesa Public School System.
6. The developmental career guidance education program in Pima County.
7. The Phoenix Career Education Council, Phoenix Union High School District.
8. Comprehensive career education program in the Roosevelt District in Phoenix.
9. The career bound project in Scottsdale School District.
10. Career education project in Apache and Navajo Counties.
11. Planned learning on work in Greenlee County.
12. The career education effort in Mohave County.
13. K–12, career education program, Santa Cruz County.

The career education efforts are leading to a major change in the educational system in Arizona. Career education may be one way to change attitudes toward the world of work. Currently, under the career education concept, all students will be provided with four alternatives upon graduation from high school. They can enter into the job market with a salable skill, enroll in a trade school, enroll in a community college for purposes of attaining a technical degree, or enroll in a 4-yea rcollege or university program for the purpose of obtaining a professional degree.

Recommendation 2: "That the State plan be comprehensive, viable instrument conducive to implementing career education and responsive to the needs of the people extending from kindergarten through the community college."

Response—Actions which encourage a more flexible, adaptable, responsive instrument are the changes by the U.S. Office of Education that allow the administrative procedures, professional development, and program provisions that have been developed with the various sections of the State plan, 1971–72 to be subjected to annual change and variations without the entire plan's being rewritten each year. Also, Mr. J. R. Cullison, an executive administrator in the division of vocational education, was given the task of developing a master plan to cover a 10-year period of time to identify the vocational needs of the people of Arizona, how the division of vocational education can meet these needs, and the sugested actions needed to be taken in order to meet these needs.

Recommendation 3: "That the responsibility for programs, services, and activities be established by the local school governing body, including accountability of funds, teacher and student success, placement, and followup."

Response—The responsibility for programs, services, and activities has been established by the local school governing bodies. Any vocational project that a local school governing body wants must be presented in a written proposal that may be written with the help of supervisors of vocational education and county coordinators if needed. The proposals identify the needs of the local school governing body. These needs are incorporated into the proposal and presented to the division of vocational education for possible funding. All proposals include accountability of funds, teacher and student success, placement, followup, a description of the research and evaluation procedures that will be used to evaluate the research.

Recommendation 4: "That Federal funding for such services, programs, and activities in career education be provided through block grants as recommended in the fourth report by the National Advisory Council for Vocational Education."

Response—All of the 13 projects in career education in Arizona have been funded by State block grants. All projects have been established by the use of specific proposals which were evaluated before the allocation requested was granted, a procedure consistent with the concept of block grants. The proposal procedure toward block grants allow State authorities, school boards, and administrators the flexibility needed to administer the program under the grant. Writing career and vocational education proposals also eliminates the overlapping of programs and services by requiring that the proposal writers research the needs of their communities. The only federally funded career education project in Arizona is the one in the Mesa public schools. This project is a result of a block grant awarded from the U.S. Office of Education.

Recommendation 5: "That inservice training of teachers and counselors be extended through the elementary schools in order to develop the concept of career education."

Response—Eleven of the thirteen career education projects in the State concern themselves directly with the inservice training of teachers and counselors. This training is in cooperation with the

State universities, a relationship that allows the participants of the inservice workshops and training sessions to receive college credit. The remaining two career education projects that do not have inservice training of teachers and counselors are those projects which do not have a great amount of student involvement. The project at the ASU Bureau of Broadcasting, a television experimental program, and the Phoenix Career Education Council in the Phoenix Union High School District are career education projects that do not directly utilize classroom situations. Career education currently exists in grades K–12 in Arizona, but extensive planning is underway and encouragement is being given to State legislators to include the Arizona community colleges in the career education concept with the university systems included in the future.

Recommendation 6: "That the preparation of teachers and counselors for career education be reexamined."

Response—A great deal of discussion about the certification of teachers and counselors has concerned Arizona educators in 1972. Some of the departments that are involved in teacher training at ASU and NAU have been trying to install work experience within the bachelor's degree requirements; however, only limited progress on this important recommendation has been made.

Recommendation 7: "That the State department of education establish a uniform definition for 'career education' for use throughout Arizona."

Response—The Arizona State Department of Education and the division of vocational education have in the past year developed a uniform definition for career education, as follows:

> Career education combines the academic world with the world of work. It must be available at all levels of education from kindergarten through the university. A complete program of career education includes an awareness of the world of work, broad exploration of occupations, in-depth exploration of selected clusters, and career preparation for all students. This calls for all basic education subjects to incorporate career education as the major activity throughout the curriculum.

CALIFORNIA

Vocational Education Reporting System

In its second annual report, the council recommended:

> That the State Board of Education and the Board of Governors of the Community Colleges develop a reporting system which will provide information by which progress toward these goals and objectives can be measured at the state and local level.

In response to that recommendation, the Department of Education and the Board of Governors staff stated:

> The 1972–73 California State Plan for Vocational Education provides for a reporting system which includes information indicating progress toward achieving goals and objectives. See Part I, Sec. 1.5 (*program evaluation*), 1.6 (*state reports*), 3.414 (*local program evaluation standards*), Appendix A (Instructions for Preparing a District Plan for Vocational Education, Part II, Table 3 (*goals, objectives, outcomes and activities*).

In reviewing this response, the council observes district plans and not the State plan reflect criterion measures for goals and objectives. The council further observes that the State plan provides only

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(Italics provided by Advisory Council.)

for the measurement of goals and objectives of specific program areas and services, and concludes the State reporting system, for purposes of evaluating the total program of vocational education, is far from being adequate.

In that the previous recommendation has only been partially implemented, the council recommends:

> That information provided by local school districts and area planning committees regarding district and master plans be submitted in time to be incorporated into the State plan. (Area planning committees are mandated to provide master plans for incorporation into the State plan.)
>
> That information gathered and reported by the State Department of Education be more comprehensive in order to better describe and evaluate the State's vocational education program.
>
> That data on the occupational training provided in private vocational education schools and other institutions, such as the military, be collected and maintained on a continuing basis and included in the State Plan.

Vocational Education for Disadvantaged and Handicapped

During the year 1970–71, the council recognized that the vocational education programs for disadvantaged were not being uniformly administered, were not funded adequately, and there was some discrepancy regarding the definition of the term disadvantaged. In its 1970–71 annual evaluation report, the council recommended:

> That the California State Plan for Vocational Education provide for increased attention to vocational education for the disadvantaged and the handicapped, encouraging school districts to combine efforts as appropriate to increase the effectiveness of the limited available resources, and for recording and evaluating the extent to which progress is achieved in serving the educational needs of these persons.

In response, the State department of education and the board of governors staff reports:

> The 1972–73 California Plan for Vocational Education includes increased attention to vocational education for the disadvantaged and the handicapped and provides for the evaluation of the progress made in achieving the needs of the disadvantaged and handicapped (see Part I, Sec. 1.5 (*program evaluation*), 1.72 (*cooperative arrangements-handicapped persons*), 1.94 (*construction requirements-accountability to handicapped persons*), 1.10C (*economically depressed areas or high unemployment area definitions*), 3.23 (*identification of disadvantaged persons-definition/criteria*), 3.13 (*identification of handicapped persons-definition/criteria*), 4.0 (*vocational education programs for the disadvantaged*), Part II, Table 3 (*goals, objectives, outcomes and activities*), Appendix A (Instructions for Preparing a District Plan for Vocational Education) Parts A (*application instructions-disadvantaged*)—C (*application instructions-research*)—F (*application instructions-consumer and homemaking*)—G (*application instructions-cooperative education*)—H (*application instructions-work study*). (Italics provided by Advisory Council.)

The council feels this is still an area of major concern and that vocational education has not enjoyed the acceptance and involvement in disadvantaged areas where the unemployment rate is high.

In May 1972, when the State Department submitted its annual plan for the approval of the council, the following reservation was made by the council:

> That set-aside funds for the disadvantaged should go to the districts which have the greatest numbers and the most severely disadvantaged students. In areas where there are Model Cities programs, the planning should be done in consultation with the Model Cities administrator.

Subsequently, the council prepared a position paper stating their interpretation, analysis and recommendations on programs for the disadvantaged. It was determined that a clear comprehensive analysis was impossible because no criteria for identifying and counting these students existed, and there was no way to relate programs in geographic areas to one another. It was also noted that little progress had been made to encourage school districts to combine their efforts and resources to identify and better serve the disadvantaged. On the other hand, the council has been encouraged that guidelines defining the disadvantaged have been improved, thus, providing more latitude in program planning and development.

The council's continuing evaluation of disadvantaged projects indicates some progress has been made in this area; however, the council is not satisfied with the funding level of individual projects and quality of programs for the disadvantaged whose impact may be measured. It would seem more appropriate to concentrate these limited resources to a few well planned programs in order to determine whether money is a significant factor in solving the problem

In order to gain information on the effectiveness of vocational education programs for disadvantaged students, the council has obtained a research proposal to evaluate selected target area programs in the Los Angeles area. The demonstration study will develop data gathering procedures, interview instruments and the examination of measurable criteria. In addition, the study will provide an analysis of the "relationship and differences involved in the interpretation and implementation of stated definitions and objectives at various administrative and operative levels * * *" "with special attention to the identification of disadvantaged persons, method of delivery and accountability."

The council plans to continue its efforts to establish more equitable ways of funding programs for disadvantaged: encourage the establishment of evaluative criteria for funding and evaluating projects: support efforts to increase coordination among and between all agencies concerned with the disadvantaged in order to avoid duplication of efforts and encourage the involvement of students in program planning. The council feels that the support for vocational education programs for the disadvantaged can be increased by effective interaction with students, lay citizens and professionals participating in planning and evaluation.

The council, therefore, recommends:

> That all VEA proposals submitted for the disadvantaged show written evidence that there has been input from the community or region where they will be implemented, including other federally funded programs in order to avoid unnecessary duplication of effort, and that sufficient funds be allocated to assure attainment of the proposals' major program objectives.
>
> That a semiannual report on the status of each disadvantaged and handicapped or research demonstration project be published

and appropriately distributed to districts/agencies indicating the progress each has made toward program objectives and/or tentative research findings.

That jointly the Council, the staff of the State board of education and board of governors of the community colleges hold a series of workshops to improve communications and disseminate information regarding vocational and career education programs for the disadvantaged.

That appropriate research in the area of the disadvantaged be undertaken to determine whether program efforts are having a measurable impact in helping the disadvantaged.

In the area of vocational programs for the handicapped, the Council has seen very little evidence to support increased attention by the State board of education and board of governors of the community colleges to these individuals. The Council urges the department of education and board of governors to focus additional attention to identifying the handicapped in the State in need of vocational education and to provide leadership in program development.

Vocational area planning

In an effort to improve the overall planning of vocational education programs, the legislature provided for the creation of no more than 15 vocational area planning regions in California, each mandated to produce a master plan coordinating the resources, manpower needs, and vocational programs in designated geographic areas. Presently there are 12 designated planning areas and five area planning committees functioning in the State and the Council hopes for the full implementation of all 12 area planning committees in the near future. Each area planning committee reflects the interests of the State department of education, chancellor of the community colleges, vocational education, career education, HRD, the private sector, and community participants within their area.

In the Annual Evaluation Report for 1970–71, the Council recommended:

> That the State Board of Education, the Board of Governors of the Community colleges, and all education agencies provide positive leadership and support to area or regional planning and coordination of vocational education.

In response to this recommendation, the department of education and the board of governors staff reported:

> The State board of Education and the Board of Governors of the Community Colleges are providing leadership and do support the area planning activities for vocational education. Vocational education funds are authorized for the support of:
>
> 1. A staff member to assist in the statewide coordination of the vocational area planning program.
> 2. The employment of area vocational coordinators as staff to assist the Area Vocational Committees.
> 3. The travel expenses for the staff and committee members.
>
> Leadership is provided to the area planning program by:
>
> 1. The State Director of Vocational Education.
> 2. The Chancellor of the California Community Colleges.
> 3. The Director of the Department of Human Resources Development.
> 4. The Statewide Coordination of Area Planning.
> 5. The Area Planning Coordinators.
> 6. The State Board Staff.

However, the Council has been advased by members of area planning committees of some major concerns and of their dissatisfaction with the lack of support and value given to their efforts. Their concerns include (1) area planning reports were not integrated into the 1972–73 State plan for vocational education, and (2) funding for required research and planning is far from being adequate.

The Council sees the need for establishing better lines of communications between the State agencies and the area planning committees. The Council plans to continue its support of area planning committee activities, and offers the following recommendation:

> That the Council be assigned responsibility and staff support to provide central coordination of the area planning committees as provided for under Education Code Article 10.4, section 6268.

Comprehensive manpower information

The Council recognizes the need for valid data in developing and improving vocational education programs. The Council is concerned that the present method of collecting data on manpower needs, job opportunities and employer needs, by the Department of Human Resources Development (HRD) and the state department of education, are far from being effective. The use of valid manpower data is the heart of vocational education program development and improvement, and is essential component in planning.

To emphasize the importance of this need and for its improvement, the Council in the 1970–71 Annual Report recommended:

> That the Department of Education, with the cooperation of the Department of Human Resources Development, develop data sources of procedures for securing manpower projections and for relating these to vocational education output, including the impact of private vocational schools, business and industrial training, and military training.

In response, the State department of education and the board of governors staff reports:

> The Department of Education does cooperate with the Department of Human Resources Development in the development of data on manpower projections and relating these to vocational education output, including the output of private vocational schools. Similar data relating to the business and industrial training and the military is not available. See Part I, 1.71 (*agreement between State Board and HRD*) and Part II, Table 1 (*employment opportunities related to vocational education programs labor demand and supply summary*). (Italics provided by Advisory Council.)

The State plan recognizes HRD as the primary source for collecting and disseminating labor market data including projections for future needs. During the past year the department of education and HRD, through the action of the Governor's office, have moved to create a joint occupation preparation task force to align their efforts and cooperation in this area.

However, the Council believes that no improvement can be made in the present system of data collection and dissemination until the Department of Labor financially supports HRD to perform this function. The Council believes that reliable manpower input from industry is also needed.

Additionally, the need for total manpower development has been recognized by the office of the Governer who created a task force to make recommendations on manpower policies. This task force strongly encouraged a comprehensive systems approach to unify the factors of all the fragmented manpower programs in operation.

To encourage the development of data sources and procedures for securing comprehensive manpower projections and to relate these to vocational education output, the council recommends:

> The State board of education and board of governors of the community colleges assist and support HRD in its efforts to secure funds from the Department of Labor in order to establish a viable manpower data system; and to assist HRD in its effort to establish the development and implementation of a manpower data system as a priority item in its program of work.
>
> That the council assist the Joint committee on vocational education and the Joint occupational preparation task force prepare a position statement supporitng the specific recommendations made by the Governor's manpower policy task force concerning the need for a comprehensive economic and manpower data center and forward it to the State board of education, board of governors of the community colleges and HRD.

COLORADO

The number of students enrolled in vocational education continued to increase as the opportunity to enroll in the program of their choice expanded. Secondary enrollment in regular vocational programs increased 17 percent to 27,761 students during 1971–72. There are now 37 percent of all 11th and 12th grade students enrolled in regular vocational programs in Colorado.

Postsecondary vocational program enrollment increased 8 percent to 11,010 students. This represents 44 percent of the total postsecondary enrollment in community colleges, junior colleges, and area vocational schools.

There were 19,850 persons enrolled in adult vocational education programs during 1971–72. This was an increase of only 2.3 percent over the 1970–71 enrollment. The 1972 State plan had projected an increase of 12 percent over the 1970–71 enrollment.

Though there has been an increase in the number and percentage of persons served by vocational programs, the actual impact throughout the State not uniform. Likewise, the need for vocational education is not uniform. Many areas with great need for the programs in vocational education have not expanded existing programs or increased the choice of programs. Sparse population and distance are recognized as deterents to expansion of the curriculum offering in many areas.

After review of the 1970–71 program offering, the advisory council developed and presented six recommendations to the State board for community colleges and occupational education. The specific recommendations were:

Program Funding

The council supports the practice of earmarking funds for special programs and urges the extension of authorization for these special programs. Beyond the earmarking for special programs, however, funds should not be specified for general program areas. The State board should have the authority to establish priorities of jobs.

Manpower Information

A job demand and employment opportunity information system should be developed to obtain accurate and intensive job demand data for both program planning and job placement.

Counselor Certification

New criteria for the selection and training of vocational and academic counselors should be explored with the State Department of Education and with the training institutions. It is essential that all counselors have a background of work experience and training in vocational counseling, as well as academic counseling, if they are to be effective in aiding students in career selection.

Program Evaluation

Local schools must conduct local program evaluation in conjunction with the State system if we are to provide maximally effective vocational education in Colorado.

Career Education

The council supports the concept of career education, but other educational agencies must participate in, and support financially, the implementation of the program at all levels.

Vocational-Technical Schools

The State board should seek the establishment of administrative and funding procedures on the postsecondary level which would provide incentive for developing vocational-technical schools in geographic areas not served at the present time. The State plan for area vocational-technical schools should serve as a model in locating these schools.

RESULTS OF RECOMMENDATIONS

Program Funding

Action taken on the specific recommendations was varied. Program funding for part 102 (b) disadvantaged, part D exemplary, part G cooperative programs, and part H study scheduled to expire at the end of fiscal year 1972, was extended.

Manpower Information

A job information program called the occupational employment statistics program was started. This was a cooperative effort between the manufacturing industries in Colorado, the State board for community colleges and occupational education, the Colorado Department of Labor and Employment, and the Bureau of Labor Statistics. This program would initially provide data on the manufacturing industries and later on selected nonmanufacturing and other nonmanufacturing business and industry. This survey, when available, should be a valuable source of planning information. Much more is needed, however, particularly in the rural regions of the State.

Counselor Certification

The total program of vocational guidance continues to be a major point of concern. Counselor certification requirements, the focus of the recommendations last year, have not been revised. While correspondence had been exchanged and meetings held among affected agencies, no official action resulted.

Program Evaluation

Organized local vocational program evaluation, though expanding over previous years, was still quite limited. As data from the State evaluation system is processed, sites for additional local program evaluations should be indicated and the evaluation conducted.

Career Education

Interest in and talk about career education had increased, since the last annual report. The State board for community colleges and occupational education and the State board of education have met to discuss the concept. Coordination between the staffs of the two agencies was expanded. Board agencies have appointed career education coordinators. A few joint projects are under way. No statewide plans for implementation of career education have been developed.

Vocational-Technical Schools

Administrative and funding procedures for postsecondary programs in geographically isolated areas have not been developed. The State board for community colleges and occupational education and the Colorado Commission on Higher Education jointly funded a project to develop a State plan for the operation and coordination of all postsecondary education. This plan was recently completed but no action has been taken as yet.

Maintenance and Follow-Through

The State advisory council for vocational education is charged with assessing and reporting to the State board for community colleges and occupational education about the effectiveness of programs. The council reviews activities and services and presents recommendations relating to identified problems. Our responsibility is to advise. It is the responsibility of the State board to review, assess, and to take action on the recommendations as they deem appropriate. It is their function to administer.

Recommendations presented to the State board are based upon study of the available data. When action taken upon specific recommendations is limited or does not produce improvement in output, additional studies are conducted and the recommendations reemphasized and restated.

CONNECTICUT

Response to the Council's Recommendations

1. We recommend that Federal and State regulations should be interpreted as broadly as possible so as to encourage the development of innovative and original ideas. We believe that the continued increase of unspent Federal funds reflects the fact that this recommendation has not been implemented.

2. We recommend increased concentration on the development of world of work knowledge among guidance and teaching personnel and find that some small steps have been taken in this direction but to a degree not commensurate with the need.

3. We recommend the development of a strong program for the interchange of ideas pertaining to adequate evaluation of programs between comprehensive high schools and State operated vocational school personnel with an open and realistic analysis of recommendations made by outside crediting and evaluating agency. We intended this to provide a massive input in the development of the 1973 State plan for vocational education and find that this in fact did not happen. Rather the local communities found themselves in the position where only one public hearing was held on the State plan and copies of the plan were not distributed in a timely enough manner to allow for the necessary interchange. The council is taking steps to begin consultation on the development of the 1974 State plan, immediately, and intends to bring together representatives of all segments of the community to provide the necessary inputs.

4. The council recommended that funds be utilized for an exchange of teachers with other States where innovative and successful programs are operated. This recommendation has not been implemented satisfactorily.

5. We recommended an increase in cooperation between the State operated vocational schools and comprehensive high schools in order to provide a more efficient sharing of the burden of education through more effective joint use of the facilities. We are pleased to say that some steps in this direction are being made but feel that the rate of progress must be accelerated.

6. We recommended an increase in the use of cooperative education programs in order to meet the wide variety of student needs and interest. We find that the local school districts have been more active in this area, but feel that stronger leadership and the provision of increased funding for this type of program must come from the department of education.

7. We recommended a decentralization in vocational staff in certain parts of the State with accompanying efficiency in reduction of travel time and improvement of communication and greater availability of technical assistance to the local community in program development. This has not occurred.

8. We recommend a revivification of local advisory councils suggesting that the department of education should receive a schedule of the meetings of such councils, minutes of their meetings, and provide technical assistance to those which were performing inadequately .This has not occurred and the council intends to press this issue more forcefully in the insuing year and in the development of the State plan for 1974.

DELAWARE

I. In its 1971 Evaluation Report, the council recommended:

That the Governor of Delaware and the Cabinet Secretaries continue to endorse and support vocational and career education in Delaware; that efforts to legally establish a Council on Education be reinforced to include representation at the Cabinet level; that this Council be directed to consider career education as *the* priority in education in Delaware; that the vocational component of career education receive the primary attention of the Council; or, in the necessity of an alternative to legislative action, the Governor appoint, by Executive Order, a State Council on Career Education under the auspices of the career education model proposal. In either case, this Council should be

> charged with responsibility and accountability for the development of a comprehensive State Plan for Career Education that extends from early childhood to retirement. It is further recommended that this Council have commensurate authority to require that all organizations in the State utilizing public funds for manpower training and vocational education programs participate and contribute to the development of this Plan; that the Plan include current, valid and reliable data pertaining to employment needs and opportunities in the community as well as specific identification of persons who are unemployed, underemployed and are available for full-time or part-time training or retraining; that the Plan define levels of training necessary to meet the human and employment needs of the community and that it fix specific responsibility, authority and accountability upon specific institutions, organizations and individuals for establishing and implementing such programs; that the Plan establish measurable short range and long range objectives; that it set forth a definite plan of action to meet those objectives and that it provide a definite program of continuing evaluation. All existing State Plans for vocational education, manpower development, job training and retraining, etc., should become smaller integral parts of the State Plan for Career Education; and that the State Planning Office be designated as the responsible agency to collect, assimilate and disseminate information to all agencies with responsibilities and authorities within the State Plan for Career Education.

Action taken by the Governor, which would have incorporated many of the suggestions inherent in the above recommendations, included the appointment of a task force given the responsibility to recommend a structure under which all education in the State could be represented at the Cabinet level. The matter is still under consideration, but activity in this direction appears somewhat limited at present.

Since that time, Public Law 92–318, the "Education Amendments of 1972", has been signed into law.

Title X of that act requires that any State which desires to receive assistance under the provisions of that Act establish a State commission (section 1202) as a planning and coordinating body. The act also requires the establishment (or designation) of an agency (section 1055) to be solely responsible for fiscal management and administration of occupational education programs.

Both the 1202 commission and the 1055 agency are required to establish State advisory councils. The State advisory council on vocational education is designed and charged with the same responsibilities as authorized under Public Law 90–576, the Vocational Education Act, and is intended to advise the 1055 agency. The advisory council to the 1202 commission has specific membership requirements which differ slightly from membership requirements of State advisory councils on vocational education. It would seem, however, that it is desirable to have some overlap in membership on both advisory councils.

RECOMMENDATION

That the Governor of Delaware and the task force on education appointed by him, regenerate enthusiasm for the concepts, inherent in the earlier recommendation, establish at the earliest date the council on education in Delaware to meet the broader needs for which it was originally intended, and also to meet the requirements for participation in the Educational Amendments Act of 1972.

Under the same reasoning, a State advisory council on career education, with perhaps subcouncils with certain overlaps in membership to serve components of occupational, postsecondary and vocational education should be established to serve the State commission, the State agency and the various policymaking State boards.

Proliferation of these advisory bodies would be a mistake which would tend to defeat the purposes of specific input, coordination of evaluation activities, and practical, workable advice.

In this regard, Delaware is microcosmic enough, as stated often, to offer a laboratory and a model for the nation while, at the same time, helping herself.

II. In its 1971 evaluation report, the Council recommended:

> That the General Assembly of the State of Delaware provide enabling legislation and financial appropriation to support Recommendation I and also:
>
> a. to technically amend existing legislation affecting vocational education, particularly Sections 1703 and 1706, Title 14, Delaware Code, dealing with deduction factors to "regular" units in proportion to "vocational" units. The legislation, in its present form, confuses as well as discourages the attempts to implement vocational education services. It also creates the necessity for arithmetical exercise thereby adding expense to the process. In addition, it is vitally important that the timetable for full availability of vocational programs be continued as a priority.

In June of 1971, the State of Delaware was faced with a fiscal crisis. Income was short of projections while disbursements remained constant. It was necessary to postpone certain programs. As a result, several recommended activities in vocational and career education were not implemented. Deductions to regular units, as outlined above, were not removed.

The priority to proceed on the timetable for full availability of vocational programs, however, was continued as the general assembly fulfilled its funding commitment to occupational programs in secondary schools (H.B. 509), authorized construction of two new career education centers, at 100 percent State financing, approved expansion of secondary vocational facilities in Kent County, and continued the planned building programs of Delaware Technical and Community College.

> b. To establish a constant factor for operating vocational education programs in area centers. Either an average of three times the existing Division II allotments should be accorded the centers; or that the realistic costs of such programs as electronics, refrigeration, welding, etc., should be allowed.

The superintendent of public instruction and his staff prepared and submitted recommended legislation to meet this need. It had the endorsement of the State board of education and the chief school officers of the State. The bill died as a result of the fiscal crisis.

III. In its 1971 Evaluation Report, the Council recommended:

> That the State Board of Education, the State Superintendent of Public Instruction, and the Department of Public Instruction, adjust existing policies to permit:
>
> a. consideration of alternatives to the present procedures and formulae for construction of education facilities in vocational education. Changes in employment opportunities and the labor market often necessitate changes in program offerings. Since facilities are, or *should be*, erected to house programs and services, facilities should be flexible and mobile, if programs and services need to be changed periodically. Certain programs are more properly implemented on a shared-time basis, others are more effectively and efficiently operated on a full-time basis. Technological change, shifts in population and economic factors dictate adjustments in program offerings and, hence, facilities. Mobile and modular units should be utilized to the extent possible and practical.

In May of 1971, the State Board of Education adopted "Operational Definitions for Vocational Education" which addresses the situations contained above. Beyond that, the school services division, administrative services branch, department of public instruction, has initiated a program of close evaluation of building requests and plans to ascertain that they contain such considerations as outlined in the recommendation.

b. fuller utilization of facilities, equipment and personnel in vocational education; that the "school day" be extended beyond the present limitations; that the "school week" include weekends; and that the "school year" have neither minimum nor maximum restrictions.

A genuine attempt to accomplish this goal is currently underway. It is to begin as a cooperative venture between the New Castle County Vocational Technical School District and the Department of Public Instruction. The superintendent of public instruction considers this goal a top priority and has committed support and initial funding for this undertaking.

Timing will probably preclude the possibility of initiation of this program during the current school year, but the strong support it has gathered from all segments predicts success for it in the future.

c. improved, expanded and extended benefits from the educational services provided by vocational youth organizations; that priority in funding be provided to program proposals which include such organizations as integral parts of the instructional program; that budgetary plans and requests reflect more adequately the financial need of these programs; that supervisory staff be encouraged to develop and implement additional services to such programs; and that commensurate consideration in terms of time, travel, expenses, secretarial assistance and performance evaluation be accorded to State Advisors to youth organizations.

"Vocational youth organizations as an integral part of programs in career education" was one of four major components of the career education model design in Delaware during the past year. A task force was appointed by the assistant superintendent for instructional services and an exhaustive study was conducted with the assistance of representatives of the U.S. Office of Education, the national vocational youth organizations, advisors, teachers and students from local club programs and youth activity specialists from Delaware Technical and Community College.

The result was a design for curricular reorganization of senior social studies in Delaware schools, a proposed reorganization of the present high school to accommodate the program, a suggested reorganization pattern for the student council organization in a secondary school, and the identification of a local school district where the model will be initiated during the coming year.

To accomplish this, it was necessary for the State board of education, the State superintendent of public instruction and the department of public instruction to meet and, in many cases, exceed, the recommendations outlined.

d. The establishment of a Department of Public Instruction Task Force with the specific assignment to evaluate existing services, plan, develop and implement programs for persons with special needs, particularly the disadvantaged and the handicapped.

To date, there is no indication of positive response to this recommendation. While the department of public instruction has several excellent programs for the disadvantaged and handicapped, there is need for the exchange of information and coordination of activities that such a task force might provide.

A more concentrated effort upon the development of programs for persons with special need is of particular necessity in Delaware and, as such, should be considered a priority.

RECOMMENDATION

That the State board of education, the State superintendent of public instruction and the department of public instruction continue to consider career education and its primary component, vocational education, as the number one priority in the State; that they exercise their positions of leadership to influence change is necessary, innovation, when traditional practices do not produce desired results and additional support, which is always necessary; that they reinforce their efforts to secure State and Federal funds, local acceptance and support, and professional, business and public enthusiasm to make Delaware the model State in career education; that they communicate their positions, goals and objectives, particularly the unpopular ones, maintain their courage in the face of resistance to necessary adjustments, and answer their critics with programs of positive action.

IV. In its 1971 Evaluation Report, the council recommended:

> That local school districts develop short, middle and long range plans for vocational and career education which include introductory and exploratory programs at the elementary level of education, cooperative and work-study programs at the secondary level and employment placement services at the secondary and post-secondary levels; that they also develop and implement plans to afford maximum use of facilities, equipment and personnel to the communities they serve.

By the end of February 1972, the State director of vocational education reported that every school district in the State, for the first time, had submitted acceptable plans for vocational education which incorporated the elements of the above recommendation.

In the narrative section of the 1971 Evaluation Report, the council stated:

> The Delaware State Plan for Vocational Education barely qualifies under minimum requirements. The State Plan in Delaware is, in fact, not a plan, but a report and an ambiguous, inaccurate and useless document, at best.
>
> The State Plan for Vocational Education should be a composite synthesis and analysis of local plans for vocational education which incorporates present thought on the status, development and direction of all activities in the State directed toward the development of individual capabilities as related to employment opportunities.
>
> There is little evidence, and less assurance, that the State Plan for Vocational Education in Delaware involves significant input and, therefore, acceptance and support, from more than a handful of individuals.
>
> The State plan for vocational education must become a more responsive and viable document, inherent to, compatible with, and responsive in, an attempt to develop a comprehensive program for career education in Delaware that ultimately provides a direction towards a qualitative measurement of education in our State.

With input provided from the local plans for vocational education, the priorities established by the State board of education and the "Goals for Delaware" contained in the "Future of the State" message, delivered by the Governor and accepted by the general assembly, the department of public instruction staff reorganized the Delaware State plan for vocational education during 1972.

Representatives from all components of the community were involved. In addition to close consultation with the advisory council members and staff, the State planning department, the Department of Labor, the State department of administrative services and private consultants specializing in manpower projections were involved. There were numerous other organizations and individuals who participated in the development of the State plan. The general public had three opportunities to react to the document.

The result is a State plan for vocational education in Delaware that is based on statewide goals and objectives, is understandable, both to those it will affect and those who will effect it, and is practical, in terms of implementation in consideration of funding realities.

RECOMMENDATION

That the department of public instruction undertake activity to communicate a further refined State plan for vocational education to the local districts and provide the assistance necessary to upgrade all local plans, which form an excellent basis for further coordination of efforts; that they also communicate the priority components of the long-range goals to the State board of education.

V. In its 1971 evaluation report, the Council made the following recommendations:

> That the institutions of higher education in Delaware serve as a model for the nation in:
>
> a. conducting an *immediate reexamination and evaluation of admission policies* which discourage students at the secondary level to engage in occupational/vocational pursuits at the secondary level at the risk of losing admission to the "college of their choice".

Beyond Delaware Technical and Community College, which maintains an open door policy for all Delaware residents, there is little evidence that any positive action has been taken in this regard by the other institutions.

In spite of a consortia agreement, established more than 2 years ago, which was intended to make educational credits, work experience and teaching experience certified by one institution in the State acceptable and redeemable, by one of the other institutions, such has not been the case. In fact, there are examples of students and teachers in the State being unable to change institutions, for any reason, without starting all over again.

To start all over again in a new or emerging field has certain validity; however, there is little justice in requiring that a person participating in, or preparing for, a career as an occupational educator start all over again in experience, in skill development or in general education (sometimes called "Basic Studies").

> b. conducting a similar evaluation of present program offerings in professional career education as related to present and projected professional career opportunities.

In spite of U.S. Department of Labor predictions that business and office workers, distributive personnel, and trade and industrial mechanics and technicians will make up a vast majority of the employed working force in the 1980's, Delaware has no graduate program in business education, distributive education or vocational education. In trade and industrial education, Delaware not only has no graduate program, it has no undergraduate program. In Vocational Home Economics, at the higher education level in Delaware, aside from the field of education, the term "wage earning" occupations is annoying and crude.

According to pioneers in their field, an ongoing attempt to rectify this situation has been conducted for more than 20 years, with no tangible results.

For a State that looks forward to being a career education model for the Nation, Delaware is neglecting a vital component. Teacher training in occupational, vocational, and career education is either nil or woefully weak.

Through the persistent efforts of members of the staff of the department of public instruction, bred by frustration, a contract was negotiated with an out-of-State university to conduct graduate programs in departments of education and the graduate schools of Delaware institutions of higher learning will be in violent opposition to this solution. It is hoped that they will be.

c. conducting an objective analysis and evaluation of teacher education programs to determine the present relevancy of such programs to the educational needs of the persons to be served.

Council members and staff have attended classes and courses in teacher education in Delaware during the entire year.

There is virtually no instruction dealing with the incorporation of career education concepts into teaching methodology in academic programs. There is little to be offered, to either student teachers or experienced teachers concerning methodology and technique in dealing with the disadvantaged, handicapped, or minority child. The organization and supervision of youth activities programs, from student councils to yearbook to VICA, is literally untouched.

Teacher training in vocational education, with the exceptions noted, is as outdated as possible, inefficient and ineffective.

RECOMMENDATION

That the institutions of higher education in Delaware start all over again; that they realize that they have an important function to serve that goes beyond administrative recognition, faculty senates and foundation support; that they evaluate their present role and responsibilities in the community; that they form a strategy to meet that role and those responsibilities in the form of a short-range and long-range plan for career teacher education; and that the State of Delaware, including the executive branch, the general assembly, the department of public instruction, private foundations as well as our Federal partners, withhold all categorical assistance for occupational, vocational, and career education to these institutions until such a plan, a complete plan, which incorporates State goals and objectives, is acceptable to the agencies involved.

VI. During the past year, the Advisory Council conducted a statewide evaluation of secondary programs in occupational-vocational education as follows: The evaluation consisted of three phases.

The first phase consisted of the assistance of the Council in establishing common, official operational definitions for vocational education that could serve as a basis for improved communications in stating policies, writing proposals, drafting and explaining legislation and similar activities.

Using these definitions, Council staff interviewed selected individuals in leadership positions that were agreed upon to be vital in directing the course of education in the State. Such individuals included the Governor, Russell W. Peterson; the State superintendent, Dr. Kenneth C. Madden; the chairman of the house education committee, Mrs. Clarice U. Heckert; the chairman of the senate education committee, Senator Everette Hale; the director of vocational education, Dr. Daniel E. Koble, and his successor, Mr. Conrad Shuman; the assistant superintendents of public instruction, Dr. Randall Broyles and Mr. John Ryan; the chairman of the chief officers association, Mr. William Keene; members of the State board of education; and members of the vocational staff of the department of public instruction.

The purpose of these interviews was to identify the intent of the leadership in regard to the relative importance of occupational-technical-vocational and career education in the State.

The interviews proved conclusively that career education, with vocational education serving as the nucleus, was, in fact, the top educational priority of the leadership in the State.

With very few exceptions, the individuals contacted felt that education for immediate employment and, eventually, a satisfying career, whether or not that career required higher education, was, or should be, the most important goal of the schools.

The second phase of the evaluation was to visit every secondary school in the State, to interview the superintendent of each school district and the principal of each school. The primary purpose of this activity was to determine whether or not the intent of the leadership in the State, in regard to vocational education, was being effectively communicated and accepted by the local leadership.

Secondary, however very important, purposes of this phase were to determine needs in vocational education as perceived by the local leadership, the extent to which they had been able to implement new and/or improved programs and services in the school, and to give personal visibility of the council to the local leadership and vice versa.

Members of the council visited every school district in the State, Interviewed every (100 percent) superintendent of schools and a vast majority (88 percent) of the secondary principals in Delaware.

Intial preconceptions to the contrary, council members and staff were very encouraged by the reception, courtesy, and frankness accorded them by the school administrators. Furthermore, the council was impressed with the degree to which the intent of the framers of educational policy in the State had been communicated and accepted by the local leadership.

A consensus statement of the school administrators, drafted by council staff from statements contained in the interviews, was recirculated among the administrators. No negative responses were received and, therefore, the summary statement should be in this evaluation.

> (We have had) an opportunity, if not a mandate, to conduct a thorough evaluation of all curricular offerings (which has) resulted in a reorientation of priorities, adjustment and improvement in curricula, increased and more relevant offerings which led to greater student interest, a greater appreciation for occupational training on the part of teachers and administrators, and improved communications with the community.

The third phase of the evaluation was a questionnaire, based on the same questions asked in the interviews of the administrators, that was sent to every secondary teacher of occupational-vocational subjects in the State.

The purpose of this activity was to determine whether or not those persons directly on the firing line were able to identify any change in attitude, curricula and support consistent with the intent of the leadership and the statement of administrators.

There was an 82 persent response from the teachers.

Categorically, the teachers agreed with the administrators.

Such responses as concerned establishment of new occupational programs, improvement of existing programs (by supplies, materials, housing, increased planning time, reduction of student-teacher ratio, etc.) and increases in enrollments in vocational education completely confirmed estimates of the superintendents and principals.

Seventy-nine percent of the teachers reported that they had participated in inservice programs conducted by the State and/or local school districts on vocational and career education during the current year.

A consensus statement, drafted by council staff and reviewed with representatives of the Delaware Vocational Association, including Robert Richmond, president, deserves inclusion in this evaluation.

> General Education is being replaced by programs that are designed to develop particular marketable skills. Cooperative education is replacing 'exploratory' activities, laboratories and study halls. Practical activities have been added to replace theoretical courses.

An average of less than 16 percent of the teachers rated elements of their programs such as space, facilities, instructional equipment, supplies, materials, planning and coordination time as "poor". The remainder (84 plus percent) rated these elements Fair (49 percent) to Excellent (36 percent).

It is apparent that those on the firing line are feeling the impact of the intent of the educational leadership in the State. They are able to do so because, apparently, the local school administrators have heard the message (in some cases, they have helped to phrase it), accepted it, and have begun to implement it.

There are, of course, several areas of concern which need close attention before we will be able to declare Delaware as the model State in vocational and career education.

Administrators, teachers and the council agree that vocational teacher training is of primary importance in the future. In fact, teacher reorientation to the concepts of career education should be high among our priorities in rank.

Money, certainly, is a problem. "We need more of it, more quickly" in the universal theme. Timing of the arrival of the money

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is almost as frustrating as the limitations in amount. Usually, and particularly when new, innovative programs are involved, it is the last day of June before an administrator can be assured of the funds necessary to initiate a program which should begin on the first day of July. In the case of Federal funding for such projects, it is much later. Unless the local school district and/or the department of public instruction is willing to take the risk of immediate deficit spending, the new program seldom gets started on time.

The added responsibilities of hiring staff, ordering equipment and scheduling often dissuades administrators from making needed change.

Once again, in order of priority, the teachers and administrators agree that more, and better, instructional equipment is needed in vocational education.

Facilities, more cooperative programs and supplies are agreed upon to be among the greatest needs of teachers and administrators alike.

The administrators, referring to the timing of funding, cited a need for more planning time. The teachers asked for better communications, more involvement in program decisionmaking and closer coordination of schoolwide activities. This, in essence, is also planning which is contingent upon time available which is contingent upon guaranteed funding.

Teachers and administrators agree that vocational youth organizations are motivational phenomena and, properly implemented, excellent teaching and learning devices. They also agree that vocational youth organizations are underemphasized, underfunded and under-understood.

In spite of the problems noted, it is generally agreed that Delaware is well on the way to becoming the career education State.

Attitudes have changed, priorities have changed and programs have changed. They have changed for the better in regard to vocational education in a relatively short time. It is not, however, the time to feel comfortable nor to look in other directions. We still have a large number of individuals who are not in school, employed in a satisfactory occupation or who enjoy a suitable combination of both.

DISTRICT OF COLUMBIA

1970 Recommendations

1. *Source: Annual Report 1970.*—The Council recommends that the Board of Education (1) reassess its priorities for program development to assure adequate resources for early implementation of the career development program and (2) actively seek substantial increases in operating funds and in funds for capital improvement for vocational education.

Administrative Comment—Source: Annual Report 1971

(1) Fiscal year 1972 budget before Congress cites career development programs as one of four major objectives of D.C. public schools. Addition of 20[1] new cooperative education teachers was

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[1] Incorrectly reported by school administration in fiscal year 1971. Number should be 10.

included by board and administration to facilitate development of alternative designs for job training. (See No. 6.) In response to Mayor's request regarding fiscal year 1973 budget issues, the expansion of career development programs has been listed as an area requiring major financial and program expansion.

Status at End of Fiscal Year 1972

There were 10 cooperative teachers added in fiscal year 1972, and 10 from Federal funds. While general program expansion has begun, expansion of financial resources has not accompanied it. In fact, it appears that while the demand for Career Development programs has gone up substantially in the past year, resources have gone down. No increase in funding is made in the fiscal year 1973 budget to support the third priority position of career development.

2 *Source: Annual Report 1970.*— a. The Council recommends that the implementation of the career development plan be greatly accelerated and that it be progressively researched as it is developed with appropriate modifications as its effectiveness is monitored and evaluated.

Administrative Comment—Source: Annual Report 1971

Administration has begun to plan series of specialized career development centers, authorized in fiscal year 1971 capital budget. New assistant superintendent for career development programs is to accelerate this process. In testimony before Congress, the superintendent indicated plans for the administration to include specific capital budget requests for career development program facilities in fiscal year 1973 or 1974 depending on planning progress. Construction of several career development centers is one of two priority items submitted to the Mayor's center on celebration of the national bicentinnial for special funding.

Design and testing of new curriculum materials and instructional materials and instructional methods is progressing quickly but with great care. Intensive curriculum design workshops are being conducted during summer 1971 for elementary and junior high sequences with pilots scheduled at Webb and Young elementaries, Browne and Evans junior high schools. Careful evaluation by center for occupational education at the University of North Carolina required by U.S.O.E. is taking place.

Status at end of fiscal year 1972

Plan for career development center National Geographic has been developed and is in process of implementation. Facility to be ready fiscal year 1974—September—though originally there had been hope for its availability in fiscal year 1973. Use of $500,000 for capital budget development of centers has not yet reached the request for proposal stage, but a preliminary proposal for planning is now in process.

Programs went forward as indicated in plans—particularly next steps—for implementation. Evaluation in depth was carried out and gave a generally good rating to the programs. Interim report (fiscal year 1972) of supervising director indicates that the pilots were a success. Expansion planned under title I funds in fiscal year 1973 to 5–7 elementaries.

b. It is recommended that, rather than waiting out the period (5–7 years) required for site acquisition and new construction, existing industrial-type space (former warehouse, chain store, etc.) be sought on either a purchase or rental basis to permit establishing skill centers accessible to the general secondary schools. The council points out that more space will be required than exists in the five present vocational high school buildings even if the decision were reached to convert them totally to skill centers.

c. It is recommended that funds be sought to remodel, equip, and staff these skill centers at the earliest possible date.

Administrative Comment—(2. b. and c.)—Source: Annual Report 1971

Plans for National Geographic building include a pilot career development cluster in communications and media. While it will be shared by several educational programs initially, it is planned that the building will become one of the career development centers as program plans and financial resources are available.

Status at End of Fiscal Year—(2. b. and c.)

Building to be ready for use in September 1973 to contain communications and media and fine arts and humanities programs. Beyond that, no further progress on purchase or rental occurred during fiscal year 1972, though opening of Woodson model in September, 1972 gives some added thrust to the overall program.

d. It is recommended that the utilization of existing industrial arts, home economics and business educational facilities in the 40 junior and senior high schools be reviewed for possible help in meeting the space and equipment problem.

e. Further recommended that the existing five vocational high schools not be phased out as independent institutions until: (1) respectable surveys and projections of manpower requirements can be secured; (2) it may be determined that they will not be needed for certain specialized programs, particularly those that would be too expensive to replicate in the new skills centers; and (3) it is assured that an equivalent integrated educational experience is available under the career development plan. Such program research as this should be gotten under way without delay, utilizing funds for this purpose provided by the Vocational Amendments of 1968.

f. It is recommended that this total task of planning and development be carried out under the immediate direction of a duly appointed assistant superintendent for vocational education.

Administrative Comment—(2. d. e. f.)—Source: Annual Report 1971

Establishment of department of career development programs with a mission and responsibility which includes the present vocational high schools and career oriented programs such as industrial arts and business education is designed to facilitate careful and comprehensive action included in these recommendations. While the new assistant superintendent is charged with moving ahead rapidly, he must also include all groups in planning and draw upon best research and models available here and throughout the United States.

Status at End of Fiscal Year 1972—(2. d. e. f.)

The new assistant superintendent for career development was appointed July 1971. It is not known how thoroughly the existing facilities in the 40 junior and senior high schools were reviewed but it is assumed this was done during 1972.

There is no indication that the five existing vocational high schools are being phased out at this point because there are no physical alternatives.

3. *Source: Annual Report 1970.*—a. The council recommends that all programs in industrial arts, home economics, and office and distributive education be placed under the office of the State director of vocational education.

b. It recommends that under the general direction and supervision of the chief State school officer (superintendent of schools) the executive officer for the implementation of the career development program be the State director of vocational education (present title, acting assistant superintendent for vocational education) who should have assigned to his team for planning and implementing the changes called for in the career development program, key personnel from the other levels and areas of the system concerned with the evolution.

c. Further recommended that the State director of vocational education be the project officer for all grants and contracts using funds appropriated under the vocational education acts, such as that for teacher training with WTI.

Administrative Comment—(3. a. b. c.)—Source: Annual Report 1971

These recommendations are all included in the mission and responsibility of the new department of career development programs.

Status End of Fiscal Year 1972

There is some concern expressed by principals of the vocational high schools in reference to their not being included in the overall planning of the career development concept. However, they state that there have been many improvements in facilities and equipment, and in the system for receiving supplies over the past year.

During fiscal year 1972, members of the council toured the vocational high school facilities, and conferred with principals, teachers and students. As a result, a set of recommendations was developed and forwarded to the board of education for its response.

a., b., and c., accomplished, with few exceptions (adult education is one and careers in the arts is another.)

4. *Source: Annual Report 1970.*—a. The council recommends that staff development activities related to implementation of the career development program, be expanded as soon as possible to embrace all school personnel, and suggests that one effective approach is the involvement of school teachers and officers in the planning of programs that face the realities of the labor market and the occupational destinies of the people.

b. The council recommends further that the public relations efforts of the school system carry a strong and sustained component directed toward changing the attitude of the public in general, and parents and students in particular, toward the world of work and toward educational programs that prepare for advantageous entry thereto. In this effort, industry and commerce will be useful allies.

Administrative Comment—(4. a. b.)—Source: Annual Report 1971

Staff development for all school personnel, and public relations for students. Parents and the general community are an essential part of the career development plan. There is a great lack of knowledge regarding the realities of the labor market, and the role of vocational, technical, professional and general education in helping individuals to control their occupational destinies. Department of career development programs will have the strong support of the vocational education advisory council and all segments of the community in this effort.

Status End of Fiscal Year 1972—(4.a.)

The council has seen some evidence of progress but feels that even more effort must be expended in this direction. The council hopes to be included in this effort, and commends the direction that the assistant superintendent appears to be taking steps during fiscal year 1973 to familarize staff and officials with career development philosophies.

Status End of Fiscal Year 1972—(4. b.)

The council concurs in the beliefs expressed under administrative comment and is deeply concerned that b. is not adequately developed at this point. The council expresses intent to change this deficiency in fiscal year 1973 by entering into an effort to expand public relations to include the Mayor and city officials, the board of education, the school administration and teachers, the students, parents, and community, business, and industry. None of these elements are sufficiently aware of the integral meaning of the career development program or the effect its full implementation could have on educational success in D.C.

5. *Source: Annual Report 1970.*—a. The council recommends that careful planning based on the most valid manpower projections, be undertaken utilizing: (1) the resources of the D.C. Manpower Administration; (2) the most knowledgeable personnel within the school system; (3) such outside consultants and contractors as may be needed; and (4) the accumulated intelligence of employers and organized labor in selecting and organizing content.

b. The council reccomends that the cluster design be entered into carefully, taking advantage of successes and failures elsewhere and researching pilot efforts in the D.C. public schools as they are developed. Overgeneralization is as much to be guarded against as overspecialization. The cooperation of business and industry in curriculum development will be invaluable.

c. The council recommends that the deployment of curriculum offerings among the network of skill centers be planned with equal care, so that poor accessibility may not deny a student the opportunity to select a program; and so that "blocks-of-time" scheduled between home, school and skill center may not produce regression because of interruption in the learning process.

d. The council recommends that particular attention be paid to the development of vocational education programs for women who represent a vast under-utilized resource, especially in disadvantaged communities.

Administrative Comment—(5. a. b. c. d.)—Source: Annual Report 1971

Detailed planning of high school level career development program is a major undertaking which must be done with speed but with expert advice to assure highest quality of educational services in terms of curriculum and total program design, including short-run and long-range facility needs. In view of this, administrative and board of education requested and obtained $533,000 in fiscal year 1971 capital budget for preliminary survey and design of career development centers.

D.C. schools joined with Mayor's study of higher education in the District and D.C. Manpower Administration in contracting with Arthur D. Little, Inc. for a projection of manpower needs in the D.C. metropolitan area through 1985. Due in August.

New assistant superintendent for career development programs is charged with arranging for necessary specialized assistance to develop curriculum designs and educational specifications for the career development centers, including selection of alternative sites for new centers, along with detailed specifics, re space, personnel and equipment needs. This information will become the basis for capital budget requests. Work will also include a phase-in plan for implementation, including appropriate changes in the program of the present vocational high schools, use of the former National Geographic Building, other school facilities and rental space.

Maximum involvement of school officers, teachers, students, and vocational education council and other interested individuals and groups, including employers and labor, is planned to assure that plans are practical and will offer highest quality programs for all students.

Status End of Fiscal Year 1972—(5. a. b. c. and d.)

Seminar conducted by Education Facilities Lab in March 1972, which included some of the best national planning minds.

Next step in use of these funds is about to be taken in terms of developing a request for proposal.

A report entitled "Manpower Requirements in the Washington Standard Methopolitan Statistical Area: A Guide to Planning Education and Training for Public Education in the District of Columbia" was published and a summary of the report widely distributed. (This was the Arthur D. Little report.) The only new jobs cited in any area were in the health field, though extensive documentation was made of manpower needs in known fields.

(b) Design has been made for 10 clusters, curriculum guides developed for 7th and 8th grades, and first steps taken in pilot programs at two elementary and two junior high schools, involving 823 children. Craft committees have helped to develop curricula in health and electrical fields. A research and evaluation report on the elementary and junior high pilot programs has been published by the University of North Carolina.

Widening Horizons, a career orientation program for 9th graders has been introduced into 11 junior high schools and is based on the cluster concept.

Planning for the Woodson model at the high school level has been completed for introduction in September 1972.

Plans have been made to include "Project Women" in three junior high schools beginning Fall, 1972.

Plans for National Geographic Center to house communications and media and fine arts clusters were completed with work to be finished in time for use in September 1973.

Addition to M.M. Washington set for bids in 1972. Completion for use is hoped for 1973.

6. *Source: Annual Report 1970.*—The council recommends that outreach be promoted in vocational education programs through greater development of alternative designs including cooperative part-time programs, on-job training, community-based programs, easy access learning labs, etcetera.

Administrative Comments—Source: Annual Report 1971

Distributive education now involves over 900. Cooperative office practices served over 595. Two new programs began in fiscal year 1971 and will be expanded in fiscal year 1972.

Ford cooperative program in automotive training for 16, expected to expand to 36.

C&P Telephone Coop. involving 28 in telephone crafts training—will expand to more than 30.

Metro training in construction for 148.

Two new alternative programs planned for pilot operations during the coming year: G.M. Coop. (automotive training) for 18; and Shell Oil Co. Coop., in basic automotive training, retailing and merchandising and station management for over 18 students. Capability of the department to serve the needs of high school students throughout system still inadequate. Twenty cooperative education teachers included in severely restricted fiscal year 1972 budget to provide radical increase in part-time and on-job-training programs.

Status End of Fiscal Year 1972

The March 1972 report of the career development program department on cooperative work-experience programs included the following data: Office education cooperative work-experience: 376. Distributive coop.: 513. Job conditioning: 142. Internship: 103. Total: 1134. (Summary of senior and vocational high schools.)

An additional 1.105 were dismissed early from school for employment, not under the above programs, plus 35 junior high students on early work study release with consent of schools.

Twenty new teachers hired and developing interdisciplinary cooperative program with immediate goal of 500 placements for academic seniors graduating without skills and without plans for further education.

Career counseling and placement staff in every academic senior high school.

7. *Source: Annual Report 1970.*—The council recommends that the board of education assume the leadership in establishing an interinstitutional planning and coordinating council to promote cooperation and reinforcement among these institutions (and possibly others), in order that the public may benefit from the most efficient and effective sharing of a complete range of offerings for career preparation.

Administrative Comments—Source: Annual Report 1971

Administrative concurs and sees a leadership role in this area as a responsibility of the schools implied in the career development plan. No formal efforts to date. The new assistant superintendent will be charged with responsibility for initiating discussions re the appropriate forum for this type of interinstitutional planning. Coordination and cooperation should improve cost-effectiveness of public expenditures by all agencies, and provide individuals with opportunities for wise choices regarding the best educational programs for their needs and aspirations.

Status End of Fiscal Year 1972

While preliminary meetings have been held with department of special education, department of vocational rehabilitation, and mayor's task force on construction problems, no substantial change has taken place.

FLORIDA

Evaluation Should Focus on the Extent to Which Council Recommendations Have Received Due Consideration

The Council feels that its fiscal year 1970 and fiscal year 1971 Annual Evaluation Reports have been weel received by the staff of the State board for vocational education. The vocational division director presented to the council during a regular meeting on March 23, 1972 a report entitled "A Summary of Activities Designed to Achieve Recommendations of the State Advisory Council on Vocational and Technical Education." The report contained a description of activities related to each recommendation or, in a few cases, listed the agency to which the recommendations has been referred. The report shows that most of the recommendations are being considered for implementation or they are in some stage of implementation. There are only a few places in which the council feels that the response is not addressed to the recommendation.

1. As suggested in the goals and recommendations for State advisory council reports, provided by the U.S. Office of Education and the National Advisory Council on Vocational Education, the recommendations contained in the fiscal year 1971 annual report are listed below in condensed form along with a synopsis of the response to each recommendation.

Fiscal Year 1971 Recommendations and Responses

Goal 1: Evaluation should focus on the goals and priorities set forth in the State plan.

A. Recommendations pertaining to vocational guidance:

1. Response indicated the recommendation that work experience programs for counselors be implemented in conjunction with staff development and inservice programs was being forwarded to the division of elementary and secondary education.

[NOTE.—The council is not aware of any further action being taken on this recommendation.]

2. The responses to the recommendation that more reliable information regarding labor market supply and demand be used in vocational guidance indicates three activities:

a. That the Department of Commerce is developing data in terms of statewide needs by selective occupations,

b. There are two pilot programs to test the adequacy of project VIEW, and *c.* The vocational division staff is working with other divisions of the department of education in the development of an interagency project proposal for presentation to the Florida Department of Commerce and the U.S. Department of Labor. It is stated that, If approved, * * * this project would provide the basis for the development of predictive labor market information related to statewide manpower needs.

3. The response to the recommendation, * * * that occupational orientation courses be offered in the elementary and secondary schools * * * indicates several activities; there are:

a. Two developmental projects—FIAS and LOOM—are available to assist school districts,

b. There is a career education exemplary project in Orange County, and Pinellas and Broward Counties have received planning grants for these purposes, and

c. Funds requested for occupational specialists units.

[NOTE.—The legislature provided funds for 320 occupational specialists.]

4. The response to the recommendation that * * * adequate funds be made available so that comprehensive vocational guidance programs can become operational * * * indicates these accomplishments:

a. Twenty-four districts used EIE funds to employ 47 occupational specialists, and

b. The 72–73 legislative budget includes funds for 320 occupational specialists. These positions will be in addition to the STS units already provided districts.

[NOTE.—These were funded.]

B. Recommendations relating to cost-benefit analysis of vocational education:

1. The response to the recommendation that * * * development of program budget and cost accounting systems be continued and at the earliest possible date fully implemented on a statewide basis * * * indicates the following:

a. The division of community colleges is establishing such a system,

b. The Bureau of Finance, K–12 division is developing a cost analysis management information system for local districts, and it will be mandated in all districts in 1974–75,

c. Program cost studies have been made in all community colleges and 20 area vocational schools, and

d. Differential funding of vocational programs on FTE students will be implemented in all area vocational schools in 1972–73.

2. The response to the recommendation * * * that a cost effectiveness analysis of vocational-technical programs be performed at the secondary and postsecondary levels indicates that this recommendation will be given further consideration subsequent to the development * * * cost accounting systems.

3. The response to the recommendation that * * * cost-benefit ratios in social and private rates of return of vocational-technical programs be coupled with subject evaluations to serve as input data for decision-making, indicates that no cost-benefit ratio studies are underway at

this time, but further consideration will be given * * * as appropriate data becomes available.

4. The response to the recommendation that the findings of the—cost-benefit analysis of occupational training programs—be provided guidance counselors in Florida's educational institutions, indicates that this study has been reviewed and that copies will be disseminated.

C. The response to the recommendation that placement and followup services be provided for students enrolled in occupational programs indicates a followup instrument is being field tested, and a followup study of a statewide sample of vocational graduates will be made during 1972–73.

[NOTE.—No definite accomplishment related to the placement aspect of this recommendation was given; and, the placement recommendation was that high schools and community colleges provide this service for their students.]

D. The response to the recommendation that special emphasis be directed toward establishing and implementing a comprehensive vocational-technical education program in each school and community college district in the State, applying such funds and efforts as may uniquely be necessary in each district * * * indicates the following:

1. In addition to the exemplary projects in Orange County, and planning grants for career education in Pinellas and Broward Counties, that community colleges are to be involved in coordinating councils for vocational education,

2. A bulletin outlining a comprehensive vocational program for career development is being completed,

3. The 1972–73 legislative budget includes support for exploratory courses in middle-junior high schools,

4. A statewide conference on career education is planned for May or June,

[NOTE.—This conference has been held.]

5. Vocational division staff will continue to devote time to develop guidelines to implement career education.

Goal II: Evaluation should focus upon the effectiveness with which the people and their needs are served.

A. The eight recommendations in this section all pertain to community-junior college vocational-technical programs for the disadvantaged.

1. The response to the recommendation that "colleges should define their role in serving the disadvantaged" indicates * * * that the State plan (for community colleges) has been designed to encourage further expansion of educational opportunities * * * for the disadvantaged.

[NOTE.—The council feels that the response really did not deal with the recommendation.]

2. The response to the recommendation that * * * colleges include representation from among disadvantaged groups to assist in recruiting disadvantaged persons into programs specifically developed to meet their needs * * * indicates that * * * minorities specifically hired for recruiting minority students are being utilized in over half of the colleges.

3. The response to the recommendation that * * * colleges should expand the utilization of tests and techniques that replicate occupational performance requirements in placing students in appropriate programs * * * indicates that "'hands on' evaluation and diagnostic testing procedures have not been widely utilized in the past but are becoming more so." The General Aptitude Test Battery is used widely, but does not have the * * * capacity * * * for testing intellectual and emotional stresses relating to different kinds of occupational tasks.

4. The response to the recommendation that * * * colleges should offer compensatory programs on an optional basis and expand learning laboratory facilities * * * indicates the following:

a. Twenty-three of the twenty-seven colleges have programs of a compensatory nature,

b. They differ greatly in approach,

c. Some are mandatory, some voluntary, and

d. Many colleges have learning labs, they differ from simple recordings to programs combining audio and visual media, instructional models, and many other techniques and media.

[NOTE.—The response gives a good summary of "What is happening," but did not respond directly to the recommendation that compensatory programs should be optional, however, it indicated the wide use of learning labs.]

5. The response to the recommendation that * * * colleges should develop ongoing product assessments of their programs for educationally disadvantaged students * * * discusses at length the use of guide for local college planning of comprehensive services for the disadvantaged and implies that the use of, and detailed study and deliberation based on the checklist in the guide * * * should produce more effective programs which are consistent within the philosophy of the college * * *

6. The response to the recommendation that * * * colleges expand the orientation given general faculty and staff in the special characteristics and needs of disadvantaged students * * * indicates that * * * the State plan (for community colleges) utilizes planning from many sources * * * expertise of faculty * * * and counselors * * * will be used in the development ~~of~~ special programs.

7. The response to the recommendation that * * * colleges should provide policies and procedures for assessin gstudent skills, competencies and understanding prior to enrollment, as a basis of determining level of course entry * * * indicates that:

a. "Student evaluation instruments developed by the American Testing Corporation and the College Entrance Examination Board for Counseling are in use or under active consideration by 20 community colleges.

b. "A recently funded planning grant to prepare a proposed study of Pupil Personnel Services at junior colleges will provide data and information needed for planning procedures in determining the level of course entry for students."

[NOTE.—It is difficult to tell from the response whether or not an attempt is being made, or will be made to implement this recommendation, or if it has been considered.]

8. The response to the recommendation that "* * * colleges determine why a larger number of disadvantaged individuals do not attend community-junior colleges and implement procedures

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to eliminate those reasons * * *" does not address itself to the recommendation, except perhaps, with very general statements about local college autonomy and broad planning that is necessary for total college development.

B. The four recommendations in this section pertain to vocational-technical programs for the disadvantaged in area vocational-technical centers.

1. The response to the recommendation that "area centers should establish criteria for identifying disadvantaged students and familiarize local educators with the criteria" indicates the following:

a. Guidelines and criteria as defined in the Vocational Act have been disseminated to area vocational-technical centers, and

b. The Vocational Division is conducting workshops to revise existing guidelines and predures and to obtain information about outstanding programs. Resulting from these workshops will be the development of a document to assist local educational agencies and community colleges with identification procedures and appropriate services.

2. The response to the recommendation that "vocational-technical centers should determine why more disadvantaged persons do not attend * * * and implement effective methods for recruiting disadvantaged persons needing occupational training * * *" indicates the following:

a. Occupational specialists are being trained.

b. Mobile vocational guidance units are being utilized in rural and urban areas.

c. A statewide public information program to inform the public about the traing opportunities available, and

d. A planning grant has been awarded to develop a study of personnel services at area vocational-technical centers. This study will include aspects related to recruitment and retention of disadvantaged students.

3. The response to the recommendation that "* * * area vocational-technical centers determine why individuals drop out * * * before completing their training program * * *" indicates that activities in 2 above, and responses already listed under other recommendations, will provide this information.

4. The response to the recommendation that "area vocational-technical centers improve programs for upgrading * * * staff performance * * * in the use of remedial methods and techniques for working with disadvantaged students * * *" indicates the following activities:

a. The establishment of one individualized manpower training system on a pilot basis,

b. Staff development activities have been implemented to train personnel in the selection and application of instructional material to meet individual needs, and

c. Area personel have attended workshops on developing individualized learnigng packages and other curricula.

[NOTE.—Learning resource centers for individualized instruction are being established in additional schools.]

C. The following four recommendations pertain to high school vocational-technical programs for the disadvantaged:

1. The response to the recommendation that "high schools develop realistic goals and policies relevant to the occupatinal needs of disadvvantaged students indicated the following:

a. The four original exemplary projects were designed to serve the disadvantaged and are providing information needed to develop realistic goals,

b. The vocational division staff are assisting local educational agencies in developing goals and policies,

c. Local personnel have participated in workshops to develop programs for the disadvantaged,

d. Curriculum guides and other materials have been disseminated, and

e. Several other related activities are listed.

[NOTE.—Not answered is whether or not high schools are beginning to develop goals and policies for serving the disadvantaged student.]

2. The response to the recommendation that "* * * high schools become committed to recruiting disadvantaged students, including those that have interrupted their education into vocational-technical programs * * *" gives the following information:

a. The 1970 legisluature mandated that district boards provide education for persons under 19, whether in or out of school, that they actively recruit youth no longer in school, and that districts provide offerings in at least five vocational areas on a year-round basis, and

b. School boards have established such programs, or have entered into an agreement for the community college to provide these programs.

3. The response to the recommendation that "* * * high schools use learning potential tests for guidance purposes only and not as screening devices * * *" states that "a limited number of school districts are utilizing work evaluation units to determine student interests and capabilities * * *"

4. The response to the recommendation that "* * * high schools serve as referral agencies in arranging for their disadvantaged students to receive basic health care that is not provided by parents or guardians * * *" gives the following information:

a. The four original exemplary programs are providing data in the area of health care and rehabilitative services,

b. The vocational division has developed a preliminary bulletin to assist in identification of problems affecting learning of the disadvantaged,

c. The vocational division staff encourages local agencies to identify services available to the disadvantaged and handicapped and to refer students to the appropriate agency, and

d. Local educational agencies are required to establish local councils for the education and rehabilitation of the handicapped. These councils have responsibility of referring clientele to appropriate agencies for treatment of handicapping conditions.

[NOTE.—These leadership activities are no doubt helpful to local districts and schools, but response does not deal directly with the recommendation, at least not in terms of "what are the high schools actually doing."]

D. The response to the recommendation that "training programs for blue-collar technicans, skilled and semiskilled trades be expanded; and that semiprofessional, white-collar technicians and clearical training be continued at the present level * * *" indicates that this is being done.

E. The response to the recommendation that "minority groups be recruited into clerical, skilled, and semiskiled trade programs * * *" indicates specific data on recruitment into programs is not available, but based on the number of minority group persons provided training (1970–71 was 97,295) it is a reasonable assumption that a representative number of minority persons are being recruited.

F. The response to the recommendationthat "* * * an updated directory of vocational curriculums be furnished on an annual basis to all industries listed in the directory of industries or as listed in some other appropriate directory * * *" indicates that two directories are being prepared; and when completed, will be available to various industries of the State.

[NOTE.—These could be valuable to business, industry, and program graduates, and it is hoped that "will be available" means that they will be distributed in some systematic manner.]

G. The response to the recommendation that "* * * alternate quarter-study, quarter-work or semester-study, semester-work, cooperative programs be expanded in the postsecondary occupational programs * * *" indicates 15 community colleges have programs and 8 have indicated plans for starting programs at some future date. All area vocational-technical centers have some type of cooperative program.

H. The response to the recommendation "* * * that resources be provided for developing and implementing a comprehensive, intensified, public information program * * *" indicates the following activities:

1. The production and distribution of TV commericals,
2. The distribution of the brochure, "Your Tommorrow," and,
3. Production of three displays for use at career fairs, expositions, etc.

I. The response to the recommendation that "* * * each district school board and junior college board of trustees organize a general advisory committee for occupational education * * *" indicates that some have them and that division staff members are urging others to follow suit.

The following six recommendations were made in the fiscal year 1970 Annual Report and were resubmitted in the fiscal year 1971 Report.

A. The response to the recommendation "* * * that the continued development and implementation of a total management information system for vocation-technical education be given highest priority * * *" indicates the following:

1. The development of an "adequate and appropriate" MIS continues to be a high priority item,
2. Information on students and teachers is incorporated in the system, and
3. A placement and follow-up instrument is being tested, and information from selected centers and districts will be placed in the System in 1972–73.

B. Response to this recommendation was covered previously.

C. The response to the recommendation "* * * the problem of facility funding * * * be given attention at the earliest possible date * * *" indicates the following:

1. The vocational division, annually, since 1967–68, has prepared a legislative capital outlay budget for area vocational-technical centers on a 6-year basis,

2. To date, annually the only funds for area centers have been Federal and the allotted portion of the higher education bond funds,

3. Since 1965, available dollars for construction have decreased annually,

4. The decrease is due to categorical requirements of the 1968 amendments and annual decrease in the allocation of higher education bond funds for area center construction, and

5. The need for facilities, particularly at high schools, has consistently been brought to the attention of appropriate legislative committees.

D. This recommendation dealt with the need for a comprehensive counseling and guidance program, and the response has been covered in responses to earlier recommendations.

E. The response to the recommendation that "* * * a systematic program for updating of vocational-technical education teachers in the technical phases of the occupation being taught * * *" indicates as an example, for industrial education, that 14 institutes for 266 teachers were held last year, and 11 institutes for 181 teachers are planned for 1972.

F. The response to the recommendation that "* * * courses be restructured into sequential levels—sometimes referred to as laddering * * *" indicated the following:

1. Appropriate staff are developing a program of sequential course offerings, commonly called the laddering approach, which will be published in the 1972–73 Accreditator, however,

2. Licensing requirements in certain occupational areas do not recognize this approach and,

3. Any action by the division to suggest changes in licensure would involve many factors other than State licensing agencies.

[NOTE.—While the above action is commendable and encouraging the recommendation was made because it was felt that licensing requirements in some areas may need to be examined; and if it is found that they do not serve the public interest, then leadership is needed to bring about appropriate change.]

After additional study and deliberation, the Council submits for continued emphasis and additional consideration the following recommendations which were contained in its fiscal year 1971 Annual Evaluation Report.

A. The Council recommends that the continued development and implementation of a total management information system (MIS) for vocational education be given high priority.

The MIS has been developed and partially implemented. No doubt, limited resources have been a constraint to full implementation, however, few States have made equal progress. Two shortcomings that should receive additional consideration are the (1) lack of linkage with industry and employment offices and (2) the apparent lack of coordination and integration with other management information systems within the Florida Department of Education.

B. The Council recommends that resources be provided for developing and implementing a comprehensive public information program for vocational-technical education.

A public information program that is coordinated statewide which utilizes the expertise of appropriate specialists and involving persons representative of education, industry, labor, and business, can help to develop positive attitudes about vocational and technical education.

C. The Council recommends that each district school board and community/junior college board of trustees have an organized and active general advisory committee and appropriate program advisory committees for vocational and technical education.

Florida State Board of Education Regulations 6A–6.88 and Community Colleges Regulation 6A–8.571 provide that general advisory committees for occupational education may be appointed "* * * to advise the board on the development, operation, and evaluation of the occupational programs offered." Additionally, the rules and regulations of the U.S. Office of Education (Subpart A, sec. 102.4 (e)(2)) require that "The program of instruction shall be developed and conducted in consultation with employers and other individuals or groups of individuals (such as local advisory committees) having skills in and substantive knowledge of the occupations or the occupational fields included in the instruction."

D. The Council recommends that the problem of funding facilities for vocational and technical education be given attention at the earliest possible date.

Lack of facilities is a major constraint preventing enrollment of the 60 to 80 percent of the high school students who should be enrolled in vocational and technical program.

GEORGIA

The State plan for 1973 listed the Advisory Council's previous year's recommendations and indicated the action taken by the State board of those recommendations. The following section lists each recommendation, quotes the response given in the State plan, and includes where appropriate Council comment on the action taken.

Recommendation

Establish minimum criteria for a developmental program of career and vocational education in all grades and offer incentive grants to schools meeting the requirements.

Action Taken

Minimum criteria for a developmental program of career and vocational education in all grades have been established and comprehensive career education grants for grades K–12 will be awarded to 54 systems agreeing to meet these requirements.

Recommendation

Apportion school systems into geographical areas in which State staff personnel could assist schools working to meet the criteria.

Action Taken

A program manager system has been established in which the State has been divided into 18 educational service districts with one or more program managers from the State staff appointed for each district. These program managers are described in greater detail under 1.31–4 of part 1 of the State plan.

Recommendation

Give local systems greater responsibility for the planning, monitoring, and evaluation of career and vocational programs through:

(*a*) Making the annual local plan for career and vocational education the sole contract between the State board of education and the local school system and through;

(*b*) Requiring the local board of education to take formal action on the local plan for career and vocational education prior to its submission to the State department of education.

Action Taken

The local plan has now become the primary contractual plan between the State board of education and the local school system.

Council Comment

There is no evidence that part (b) of this recommendation has been acted on by the State board. The Council feels that the local board should take formal action on the local plan in order that they be more informed of this segment of the total educational program.

Recommendation

Examine the system of distribution of funds to offer all students of all systems an equal opportunity to participate in vocational programs. The present system under which 28 percent of the vocational funds are allocated to schools serving 48 percent of Georgia's student population cannot hope to meet the needs of the growing urban areas.

Action Taken

The formula for allocating funds to local school systems has been revised. All applications for local funding procedure has been established based on manpower needs, vocational needs, relative ability to pay, and excess costs. A detailed description of this formula is set forth under 3.27 of part I of this State plan.

Recommendation

Streamline financial and reimbursement procedures for career and vocational education so that:

(a) Local systems have more discretion in spending career and vocational grants in areas of greatest need;

(b) All vocational funds are expended and approved through local plans for career and vocational education;

(c) The local systems relate to their assigned manager in the State department of education, division of vocational education regarding financial and reimbursement matters;

(d) Reduce the number of monthly requisitions submitted by local systems for career and vocational reimbursement.

Action Taken

We have greatly reduced the number of teacher contracts by printing a computerized renewal contract.

Council Comment

The council feels that this response does not address the recommendation adequately.

Recommendation

Revise its allocation procedures for career and vocational education so that at least the following factors are used in determining the allocation renewed by local system:

(*a*) The extent to which the local system proposes to meet the criteria for a developmental career and vocational educational education program;

(*b*) The size of the school system;

(*c*) The extent of which the school system has met the previous year's accountability objectives.

Action Taken

In local programs the allocations for new vocational education programs are being made according to the formula for funding priority for vocational education programs as described under 3.27 of part 1.

Recommendation

Establish a statewide information system necessary for State level management of career and vocational education programs.

Action Taken

The division has been ready to move in this direction, but approval to hire staff for this purpose has not yet been received.

Council Comment

The council has seen the need for a statewide informational system and has pointed out the same in this report, as well as the reports for the last 2 years. The council would recommend that the State board of education give priority consideration to the establishment of a statewide management information system that would include a program evaluation component.

Recommendation

Establish an office of career vocational and manpower education at the highest possible operating level within the Georgia Department of Education.

Action Taken

(There was no mention in the State plan regarding this recommendation.)

Council Comment

At the beginning of the new fiscal year the office of adult and vocational education was formed with an assistant superintendent being given the responsibility for the office. The council commends the State board of education for elevating vocational education to the office level.

Recommendation

Require local systems to establish an advisory committee for career and vocational education.

Action Taken

In the 1973 local plan, systems are required to have an advisory committee for career and vocational education and to submit the names of the members of this committee.

Council Comment

Based on the comments and written responses from participants in the regional hearings a majority of the business and industry people had no knowledge of the existence of local advisory committees. Therefore, the council urges the use of these groups as suggested in the recommendation.

HAWAII

Recommendations

1. *Federal Reporting Procedures.*—The National Advisory Council should prevail upon the U.S. Office of Education to allow more flexibility for planning purposes by accepting State plans which meet the intent of legislation without following rigid guidelines formulated for the sake of uniformity for all States. In addition, attempts should be made to reduce the amount of paperwork connected with reporting procedures.

Comments

No action.—Guidelines for fiscal year 1973 plan seemed to be an improvement, however.

2. *Data Gathering for Planning Purposes.*—The Department of Labor and industrial relations and the community colleges should coordinate their efforts in conducting community surveys to avoid duplication and to ensure a comprehensive overview of manpower needs as they relate to occupational training and vocational education.

Comments

A survey of occupational needs for Oahu still has not been initiated.

3. *Updating the State Master Plan.*—The vocational education coordinating council should undertake a review and update the State master plan for vocational education with special attention on the unresolved issues noted in the 1968 plan.

Comments

A progress report on implementation of the master plan was completed in October 1972 for the consideration of the coordinating council. The coordinating council has directed its staff to prepare a report on recommended changes and to pinpoint where further study is necessary for consideration as an addenum to the State master plan. It was agreed that the State master plan will be updated rather than totally revised.

4. *Articulation.*—The vocational education coordinating council should encourage the formation of a joint committee of Department of Education and community college personnel to meet periodically

to discuss issues and problems relating to coordination of courses and services to students.

Comments

No regular mechanism has been established. An articulation seminar was held in November 1972 to develop an agreement between DOE and the community colleges on specific courses. Two follow-up conferences are planned.

The State director of vocational education should include the private vocational education schools in the planning process to the fullest extent possible.

Comments

No action.—Private vocational school participation will be required under Education Amendments of 1972.

The legislature should give consideration to a study of how the licensing of private vocational education schools may be improved and where this responsibility can most effectively be placed in the State governmental structure.

Comments

No action.

5. *Job placement.*—The community colleges should require a standardized procedure for all placement offices for the development of data which would include followup surveys on graduates and noncompletors and allow other comparative analyses.

Comments

No action on development of standardized job placement procedures. Followup surveys have been done by some campuses.

The legislature should give careful consideration to the plan prepared by the university for a career planning and job placement system in response to Senate Concurrent Resolution 39, 1971.

Comments

The plan submitted by the university had several shortcomings and should be reviewed and modified to adequately cover the needs and concerns of the community.

6. *Low completion rate.*—The community colleges should use the services of the university's office of survey research to conduct attitudinal surveys to assess the reasons for the failure of students in the community colleges' occupational programs to complete the coursework for degrees or certificates.

Comments

One report on noncompletors was issued in 1972. Effort should be ongoing.

7. *Early admissions.*—The community colleges should make every effort to regularize their early admission policies and enroll secondary students in vocational programs to the greatest extent possible.

Comments

No action.

8. *Flexibility in scheduling.*—The community colleges should give consideration to structuring group instruction on the basis of 1–6

week modules which will enable students to enroll at varying times during the school year in vocational programs.

Comments

Limited implementation, however, increasing use of modules can be anticipated.

9. *Counseling and guidance.*—The State board of vocational education should explore the problem of where vocational education fits the counseling pattern with the department of education, the community colleges, and the university's college of education.

Comments

DOE has initiated a career development continuum project for K–14 which will produce a model and curriculum guides.

10. *Administrative structure*—The State board for vocational education and State university system should give consideration to the relocation of the office of State director of vocational education to ensure greater effectiveness and flexibility.

Comments

No official action.—State director who formerly reported only to the vice president for community colleges, does however, now also report to the vice president for academic affairs.

11. *State funding for secondary vocational education*—The legislature should insure that future appropriations for the expansion of vocational education on the secondary level will compensate for the cutbacks which were necessary in the intial stages due to fiscal constraints.

Comments

Fiscal Year 1971–73 State general fund appropriations totalling $774,380 were frozen.

12. *Statewide coordinative job placement*—The provosts should develop a coordinated mechanism to link job placement information on every campus.

Comments

No action.

13. *Career Information Center*—DOE and the community colleges should cooperatively develop a centralized career information center to meet the requirements of both.

Comments

Exemplary project funded by Federal grant will be underway in fiscal year 1973 to succeed the occupational information and guidance service center.

14. *Board participation in planning*—A regular meeting date should be established for the vocational education coordinating advisory council.

Comments

No action.

Study sessions on the State plan should be held for the coordinating council prior to the public hearing.

Comments

Study sessions may be developed for spring, 1973.

Meeting sites should be rotated to promote visibility of the coordinating council.

Comments

No action.

All bodies with representatives on the coordinating council should fill vacancies when they occur to insure continuity.

Comments

No action.—Board of regents has not appointed a member to a vacancy in the coordinating council since November, 1971.

IDAHO

Recommendation No. 1

The State advisory council recommends that the State board for vocational education request full-funding of the vocational education budget to be justified as follows:

a. To develop and implement new and innovative programs for the handicapped, the unemployed, the underemployed and all other individuals needing training for their position in the world of work.

b. To provide adequate staffing in the State department of vocational education so as to provide the leadership and technical assistance necessary for the above-named individuals and groups, and to provide continued support of valid ongoing programs. Further, to provide that communication channels between local schools administrators, other education groups, industry and business, the public and the State department of vocational education are kept open to insure that all are adequately informed.

c. To strengthen guidance and counseling services for those individuals who pursue vocational education career objectives that is equal to or better than guidance and counseling services provided for those pursuing career objectives requiring baccalaureate degrees.

d. To provide career orientation programs in the elementary schools, and prevocational and vocational training programs on the secondary and postsecondary levels.

e. To provide inservice programs for school administrators, guidance personnel, and teachers in the areas of curriculum development and program development in orientation, exploration, and training for careers in the world of work.

Action by State Board for Vocational Education

Many programs have been implemented by the department of vocational education to meet the needs of the various population groups as set forth in this information. The State board, the State director and his staff are commended for their efforts to improve the vocational education program at all level.

Recommendation No. 2

The advisory council recommends that the State board for vocational education, the State administration and the State legislature establish and publish educational priorities that includes vocational education.

Action by State Board for Vocational Education

The State board for vocational education submitted the following comment regarding this recommendation to the commissioner of education: "The State board of education for vocational education has long held vocational education as one of its highest State priorities and among the several priorities established for education in the State of Idaho, vocational education is increasingly supported by this board, the general public, the advisory council and other groups concerned with the advancement of vocational education for the youth of Idaho. To this end the State board for vocational education has recommended a 100 percent increase in State funding for vocational education. The State board for vocational education can do little more than endorse this recommendation and support the vocational education programs by seeking additional resources. You will understand that we are not at liberty to speak for the executive and legislative branches of government."

The advisory council commends the State legislature for the consideration given to the need to develop a strong vocational education program in Idaho. The House Education Committee has established a subcommittee vocational education, and both the House of Representatives and the Senate have worked for adequate funding for the vocational education programs in the State.

Recommendation No. 3:

The advisory council recommended that the State board for vocational education, in cooperation with the State advisory council on vocational education and other interested groups, promote a public information campaign to promote a positive public attitude toward vocational education.

Action by the State Board for Vocational Education

The State department of education is now publishing News and Reports, a newspaper published in partial fulfillment of requirements for dissemination of information under the Elementary and Secondary Education Act.

While News & Reports has a section for news concerning vocational education, it is premature to make any assessment of the effect on public attitude toward vocational education.

Recommendation No. 4

The State advisory council recommends that the State board for vocational education secure staff to insure planning and evaluation of all vocational programs.

Action by State Board for Vocational Education

The State board for vocational education submitted the following comment to the commissioner of education regarding this recommendation: "The State board of vocational education wishes to observe that within the fiscal constraints imposed, we are employing staff as recommended by the State director of vocational education. The board would also like to observe that we most frequently employ personnel for the conduct of established courses and programs as opposed to the employment of additional administrative staff.

Additionally, staff in the area of planning and evaluation will certainly be recommended by this board upon the recommendation of the State director for vocational education and contingent upon available funds as appropriated by the legislature."

The advisory council was cognizant that certain administrative and fiscal barriers hampered the State board in filling positions. The council felt that a continued effort should be made to overcome fiscal constraints and gain legislative approval to fill the positions set forth in the State plan.

Recommendation No. 5

The advisory council commends the State board for vocational education, the State director of vocational education and his staff for their diligent and untiring efforts toward the development of a meaningful vocational education program in the State and recommends that a continued effort be directed to the improvement and development of vocational education programs at all levels—elementary, secondary, postsecondary, and adult.

Action by State Board for Vocational Education

The State board for vocational education, the State director of vocational education and his staff have continued in their efforts toward the development of a meaningful vocational education program in the State. Efforts have been, and are being made to promote programs at all levels.

Recommendation No. 6

The State advisory council reaffirms the recommendation that the State maintain the same structure of organization, with the State director coordinating his program through the State superintendent of public instruction and the executive director of higher education. This system provides visibility for vocational education in that it ties vocational education at all levels throughout the State and allows the State director access to the agenda of the State board.

Action by the State Board for Vocational Education

The State board for vocational education submitted the following comment concerning this recommendation to the commissioner:

> The State Board of Vocational Education is at the present time presented with two diametrically opposed recommendations. Recommendation #6 in the Advisory Council's report favors retention of the same structure as currently exists in the State, while a recommendation from a Citizens Task Force on Legislation, has recommended that the State Department of Vocational Education be placed within the State Department of Education.
>
> Since the State Board for Vocational Education and State Board of Education in Idaho are composed of one and the same group, we have taken this recommendation under advisement. We have asked that the two groups involved in making these conflicting recommendations, meet and if possible resolve any difference and report to the State Board of Education at its earliest opportunity.

The chairman of the task force and the chairman of the advisory council discussed the recommendation referred to and it was resolved in favor of the recommendation of the advisory council. A letter to this effect was written to the State board by the chairman of the task force committee. To the knowledge of the advisory council no further action has been taken by the State board.

ILLINOIS

1. What action has resulted from each recommendation?

2. What factors influenced the success or failure of implication of the recommendations?

3. What follow-through is being maintained by the council (for example, reediting, resubmission, new areas, et cetera?

Recommendation No. 1

The State plan for fiscal year 1973 should be written as a viable planning document with objectives, goals, and priorities clearly stated, in rank order, and with procedures for implementing the plan. Objectives should be stated in measurable terms for each occupational area by program level, by target group, and be made available to local educational agencies for on-time local level planning. A systematic method (format) should be designed for reporting program information in part III so that information will be comparable from year to year.

Action taken—Strong corrective effort was made.

Analysis of action—As the result of a change in the Federal guidelines from the U.S. Office of Education, the State plan format has been largely rewritten into a more viable planning document. The division staff had considerable input at the regional level (Federal) for this change. The advisory council also had considerable input at both the Federal regional level and at the national level promoting and developing this change. The combining of what formerly were parts II and III into a single effort was a major breakthrough. The format devised by the writing team of the division was well constructed and unique.

The old problem of the availability of the State plan to local level planning groups has not yet been solved. But strong efforts are being made to get this to the local schools for on-time planning. Efforts must be increased until on-time delivery is a fact.

Recommendation No. 2

During fiscal year 1972, plan and implement a program to assist the local educational agencies in removing obsolete equipment and replacing it with modern industrial or business-type equipment, in programs of vocational and technical education funded with State or Federal moneys.

Action taken—None.

Analysis of action—The council believes that much obsolete equipment exists in funded occupational programs. Data as to a detailed list of such equipment and where it is located would seem to be the responsibility of the State administrative agency if it was concerned about local program quality.

Recommendation No. 3

Take positive action in fiscal year 1972, by State plan goals, priorities or guidelines for funding, to increase the utilization of physical plant facilities and the instructional staff in secondary, postsecondary, area centers, or adult centers for program inprovement in comprehensiveness, accessibility, and quality between campuses within school districts and between neighboring school districts.

Action taken—Little response.

Analysis of action—During fiscal year 1972 approximately 650 local plans (both long-range and annual) were approved by the division. Less than five plans were not approved and less than 20 were approved conditionally. From these figures it would seem fair to assume that these plans did outline full utilization of facilities and staff for program improvement at all levels for cooperation and coordination between campuses within school districts and between neighboring school districts.

The council asks: (1) How many obsolete programs were dropped or reimbursement funding withheld? (2) How many interschool agreements were formalized? (3) What accountability of fiscal year 1972 funds was made before approval of the fiscal year 1973 local plan? (4) What was the average student-counselor ratio: (5) What percentage of classes met outside the 9 a.m.–3 p.m. routine?

Recommendation No. 4

The council recognizes that there is no substitute for getting people at the local level involved as individuals in vocational and technical education. Nevertheless, the council recommends the immediate initiation of a public information project using the mass meda as a vehicle for improving the image of vocational and technical education. It is suggested that radio and television programs be developed and new and improved informational pamphlets and bulletins be used.

Action taken—Some effort.

Analysis of action—The division implemented a program of updating and developing new and improved pamphlets and bulletins. The art work and layout are well done and attractive.

The State advisory council produced a film for public service television and radio entitled, "The Veteran and Vocational Education." The Illinois Veterans Commission in coordination with the council will handle the delivery services.

Recommendation No. 5

Establish during fiscal year 1972 a task force to develop new occupational programs, or upgrade existing programs for women at the skill, technical and semiprofessional level to encourage greater numbers of women to become involved in vocational and technical education. Provide planning grants during fiscal year 1973 to local school systems to pilot the occupational programs developed by the fiscal year 1972 task force.

Action taken.—No positive action.

Analysis of action.—No positive action resulted from this recommendation. The suggestion was one of priority with the research and development unit of the division and resulted in a request for proposal.

The State board, at the May 1972 meeting, did not accept this priority. It was deleted from fiscal year 1973 funding. It is true that better than 50% of the enrollments in occupational education are female, but program offerings open to women are limited with a small range of opportunity.

Consideration of Previous Recommendations

This section evaluates the extent to which the 1971 recommendations of the State advisory council for vocational education have been implemented in vocational education activities throughout the State. It is not intended to imply that the recommendations of the State advisory council were the only instruments for change. In many cases, these recommendations merely spotlighted problems which already concerned the administrators and supervisors of the programs. In these cases, the action of the advisory council provided additional support and encouragement.

The problems and recommendations of the advisory council and the response of the State board of education were transcribed from the second annual evaluation report of the advisory council. The evidence of progress was obtained through interviews, records and reports of the division of vocational education and from the minutes of the State board of education meetings.

There does not appear to be any major areas of disagreement between the State board of education and the State advisory council for vocational education, in either philosophy or purpose. In accordance with its prerogative, the State board did not respond to all recommendations. The law states that the State board may include such comments as it deems appropriate. It can be assumed however, that a response would have been made to any recommendation with which there was serious disagreement.

The Advisory Council recognizes that the implementation of many of these recommendations is a slow and difficult process. To produce change in a statewide school system is time-consuming and requires a substantial commitment of time and funds.

There appears to be a commendable level of cooperation among the State board of education, the Division of Vocational Education and the State advisory council. All three are dedicated to providing better vocational education opportunities for young people in Kansas. Where progress has been slow it can be attributed to two factors. These factors are:

1. The extensive planning and study often required to redirect activities and to reorient personnel, and
2. The limitations of personnel and fiscal resources under which the Division of Vocational Education must operate.

Problem I

Problem

Many Kansas school districts face the same problem as illustrated by a letter written by John D. Hershberger, superintendent of schools, at Horton, Kans. We herewith quote two paragraphs of his letter.

> The legal 2 mill maximum levy for vocational education in USD No. 430 yields $15,776. Our local vocational program this year will cost about $12,500. Tuition this year to vo-tech schools will cost us $15,990. Our total vocational expense of $28,500 will mean a deficit of $12,714 in our vocational education budget. This $12,714 must come from General Fund money. With the effect of the 1970's H.B. 1825 and 2051 this presents a budget problem that has no

plausible solution. The solution is to overspend the budget; seek permission to issue no-fund warrants; if permission is granted, then the following year repay the no-fund warrants, plus interest. The interest would be close to $1,000, an additional unnecessary cost to our patrons.

As a Board of Education of a public school, we feel an obligation to educate our children from kindergarten through grade twelve; no more no less. If we send eleventh and twelfth graders to the vo-tech school on a part-time basis, we probably should pay their tuition; but not for posthigh school students! But even assuming this obligation, our two-mill vocational levy would not meet our epenses. We would show a deficit of $2,574 in the vocational fund.

When students graduate from high school in Kansas, they can attend a state-supported college or university where the major portion of their educational costs are borne by State funds. If they choose to attend a community college or an area vocational-technical school, the major portion of their educational costs are paid by local tax sources. If the State is justified in assuming the major post-high school educational costs of part of the graduates, what justification is there for the State not assuming the same share of the educational costs for all posthigh school students who wish to attend tax-supported institutions?

State financing of the major operating cost of all public posthigh school education would help alleviate the problem cited by the Horton USD; it would help solve many out-district tuition problems; it would be fair and just to all high school graduates regardless of the public institution they choose to attend; it would help build a stronger educational system for the high percentage of our students who do not need a baccalaureate degree; and it would be much more equitable to the Kansas taxpayer.

Recommendations

1. We recommend that the State board of education make State financing of posthigh school operating costs a part of their planning and do all that they can to secure the necessary legislation at the earliest possible time.

2. For immediate relief, we recommend the State board work to maintain the present 2–mill levy for the unified districts to use in conducting a vocational program in the local district. It is also recommended that the board work for an additional 2–mill levy for the district to use to pay the costs of out-district tuition for its post-high-school students until State funding for these schools becomes a reality.

Response of the State Board

The State board of education supports the philosophy that the major support of vocational-technical education should be derived from the State. The State board is acutely aware of the critical problem facing the posthigh schools operating vocational and technical education programs and will continue as a part of our leadership activity to support the necessary legislation to strengthen financial base of these schools.

Progress Toward Implementation

1. The State board of education has requested full State funding for junior colleges and the postsecondary portion of the area vocational technical schools. This should substantially lower the critical property tax in these districts.

2. The development of the proposed comprehensive plan for post-secondary education will contribute to the solution of this problem. This should eliminate costly duplication and enable the State board

of education to present the legislature with a total funding request for postsecondary education.

3. A court decision has invalidated the State aid formula in Kansas. The legislature must devise a new fiscal plan for public schools prior to July 1, 1973.

Problem II

Problem

During the 1969–70 school year, there were 153,634[1] students enrolled in Kansas high schools. In the same year, there were 16,551[2] high school students enrolled in job-oriented vocational programs. In other words, only 10.8% of the students in Kansas high school can be identified as preparing for a wage-earning occupation. Probably over 80% are preparing for additional education, or for nothing. The Council is concerned with the large number of graduates who do not go on to school or who drop out and do not have the occupational skills needed to secure or hold adequate employment.

To properly provide for this large group of students is not an easy or simple task. It will need to be approached from several angles.

Recommendations

3. The implementation of recommendation number one would help the expansion of career education from a financial standpoint. If the unified school districts did not have to pay tuition on post-high-school students, the money saved could be used to improve or expand their local programs.

4. Certification requirements for school administrators need to be strengthened by including some work in the field of vocational education administration. Teacher and counselor preparation requirements should be designed to provide competency in the field of career education.

5. Policies that will integrate occupational information in the curriculum from the kindergarten through the elementary school would help solve some of these problems. The junior high school curriculum should provide for some exploration in a number of career fields. The high school and post-high curriculum should provide skill training as needed by the student.

6. The State board should continue the development and implementation of a major statewide inservice training program to encourage the expansion and improve the quality of guidance services at the elementary, secondary, post-high and higher education levels.

Response of the State Board

The State board supports the recommendation that all school administrators should have minimum course work in vocational education. It is recommended that minimum standards be developed and submitted to the State board for review and be implemented as certification requirements for school administrators.

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[1] Source: "Facts About Public Education in Kansas," State Department of Education.

[2] Source: Annual Report to the U.S. Office of Education, Division of Vocational Education, Department of Education.

Progress Toward Implementation

1. Beyond agreement, there does not appear to be any progress toward requiring a minimum level of competency in vocational education, among administrators.

The Professional Teaching Standards Advisory Board is currently studying revisions for teacher certification. This recommendation is repeated in this report with a request that it be forwarded by the State board to the appropriate subcommittee concerned with certificate requirements for administrators.

2. The work done in the development of career education programs throughout the state contributes to the implementation of recommendation No. 5. The exemplary programs at Lawrence, Clay Center, and Kansas City are designed to produce model career education programs which can be used in similar school situations throughout the State. Career education has also been implemented in other localities.

Kansas State University has participated in these programs with research, teacher education, and curriculum development. This participation has been made possible through grants from the division of vocational education. The curriculum materials developed through "careerpacs" in this project will be available to all interested schools throughout the State.

The statewide goals for education in Kansas adopted in the summer of 1972 includes carcer awarness as one of the goals for education with the following statement:

> Career preparation (Awareness).
>
> SUB-GOAL—A structured program in career awareness should be developed to provide on the elementary level cognizance of the wide range of careers in our society and the roles and requirements of the employees in those careers, on the junior high level an opportunity for "hands-on" exploratory experiences necessary in career decision making, and on the secondary level a salable skill for (1) entry into the world of work or (2) preparation for postsecondary education with eventual employment.
>
> a. Objective—By 1974(   ) curriculum packages on career education for elementary schools should be developed.
>
> b. Objective—By 1974(   ) curriculum packages emphasizing exploratory experiences with career education for junior high schools should be developed.
>
> c. Objective—By 1974(   ) curriculum packages on career education for secondary schools should be developed.

3. The following activities have contributed to the implementation of recommendation No. 6.

a. Career Development Workshop.—This workshop will concentrate on the inservice training of counselors, with specific emphases on the vocational aspects of counseling, within the total guidance and counseling programs. This workshop would be designed to center around the areas of counseling theory and practice relating to the task of counseling with students on vocational and occupational needs.

b. Vocational Guidance Workshop.—This will be a week long workshop specifically designed for AVTS counselors, and other interested vocational educators. This workshop is part of a week long vocational education workshop held at Kansas State College, Pittsburg. A committee of AVTS counselors will assist in the formulation of the week long activities.

c. AVTS-Counselor Retreat.—This fall retreat will consist of a two day workshop for AVTS counselors at Rock Springs Ranch. This informal workshop will have the objective of furthering communication between the AVTS counselors and the guidance services section, role identification and the sharing of needs and concerns of the personnel involved.

d. Kansas Vocational Association Convention.—The KVA has requested sectional meetings for guidance and counseling personnel during their State convention in Wichita, March 25–27, 1971. Three different time periods have been provided within the program structure for meetings pertaining to guidance and counseling.

e. VIEW Project Orientation.—The division of vocational education has established a VIEW project on the campus of Kansas State University, Manhattan. The purpose of the project is to provide meaningful occupational information for Kansas counselors and educators. The involvement of the guidance services section will be to provide liaison work between the center and counselors in the field. Six orientation workshops on the use of the VIEW system will be held across the State. The specific purpose of these workshops will be to show how the VIEW project may be implemented at the local level.

f. Occupational Unit Development, K–12.—This project will consist of committee work, in cooperation with Kansas State University, curriculum section and the division of vocational education, to develop a set of guidelines to expose students to the world of work and career exploration, K–12.

Problem III

Problem

The people in the thinly populated areas of the State have a need for career education; but, in many places, it is not available.

It is difficult and costly to have an extensive vocational program in a high school with an enrollment under 200. Of our 388 high schools, 54.6 percent (212) of them are under that figure. It can be seen that many of our students do not have an opoprtunity for employable skill training in their local high school.

A study by the central office of the advisory council shows that approximately 72 percent of our Kansas high school students live within commuting distance (30 miles) of an area vocational-technical school; however many of these schools do not have the facilities or instructors to accept students from outside that local district. The Kansas Association of area vocational-technical schools reported to the State board that, on June 1, 1971, these schools had approximately 1,200 persons on their waiting lists for admission to vocational training programs.

Recommendations.

7. To help remedy this situation, we recommend that the board encourage legislation that would make it easier to establish interschool cooperative vocational programs.

8. The council would further recommend that the State board encourage local districts to explore the possibility of expansion of their vocational programs by the use of closed-circuit television, video

tapes, mobile classroom units, a telelecture system worked out through the telephone company, and work-study programs in cooperation with local employers. Some of these practices would require the cooperation of several districts and could probably not come to pass under after the legislation recommended above is accomplished.

9. Satellite programs with approved vocational-technical schools should be encouraged by the State board when they appear to be feasible.

10. We recommend additional unification of districts to strengthen the schools in order that they will be able to offer a more comprehensive program.

Response to the State Board

Kansas' rural history is reflected in the fact that many small rural districts limit their vocational offerings to the areas of homemaking and agriculture. The State board will promote legislative change in the school foundation formula and will support authorization of school districts to contract over expanded periods of time; so that these small districts, through cooperative efforts, may expand their vocational education to offer students choices to study for other occupational fields.

Progress Toward Implementation

1. The exemplary program in career education at Clay Center, Kansas was designed to provide a model for use in similar rural districts throughout the State.

Experience with this program suggests at least two elements which can be of value in any rural school. These are the "World of Work" course offered at the 8th grade level and the diversified cooperative program at the high school level. Both are rated as quite successful by the administrators, teachers and employers involved. Both of these activities can be implemented with a minimum of expense to the district.

Additional work needs to be done in further evaluation of these activities, and in the development and dissemination of curriculum materials to other interested school districts. The procedures for the diversified cooperative program and the requirements for coordinators of this program need to be studied and refined by the division of vocational education.

2. A second project designed to explore ways of meeting the needs of rural youth for vocational education is the unified schools association for vocational education. This is a cooperative venture of 16 small school districts in northwest Kansas. The 16 school districts represent a geographical area which is approximately 125 miles long and 75 miles wide.

The purpose of this project is to identify employment opportunities in the area and to design a vocational education system which will provide quality vocational education to the students of the districts. This project is in the developmental stage and has not yet yielded results that can be generalized to other rural schools. At this time, it must be considered as a first step toward improving the vocational education opportunities for rural youth.

Problem IV

Problem

The more populous areas of the State cannot provide for the multitude of people that should have occupational education. The present staff and facilities of these areas are so limited that hundreds of students are denied admission each year.

On June 1, 1971, the Kansas area vocational-technical schools had enrolled on their waiting lists approximately 1,200 students who could not be served. In addition, these schools had many inquiries from persons who gave up when they learned the length of the waiting list. Last year, Topeka was forced to put their contracting schools on a student-quota basis and had 184 from their own district on the waiting list. They also had 850 students in over 34 classes at night in addition to regular day school programs.

In addition to the ones who apply and can get into these schools, there are probably many more who by the nature of their aptitudes and abilities should be guided toward the programs offered in the vocational field.

Recommendation No. 1 will help solve this problem if enacted into law.

Recommendation.

11. The operation of programs in vocational education throughout the year and the continuous use of facilities to utilize them from early morning until late at night should be investigated and practiced where feasible. The necessary funding for this expansion of services should be provided.

Response of the State Board

The State board of education supports and encourages the expanded school day and school year for the continuous use of facilities so that more populous areas of the State can provide for a multitude of people who desire vocational training and that the State support the need for financing education of such schools so that this can become a reality.

Progress Toward Implementation

1. The number of adults enrolled in vocational education in Kansas has increased steadily over the past several years and most of these are enrolled in evening programs. The increase in enrollment between 1969–70 and 1970–71 was approximately 23 percent. Enrollment data for 1971–72 are not yet available, but it is anticipated that this rate of expansion will probably continue.

2. The division of vocational education has encouraged the area vocational-technical schools to expand their student capacity by year round operation and by more flexible enrollment and scheduling policies. Ten schools offered 8-week summer vocational programs in 1972.

3. Another way of increasing student capacity is through community based programs of work experience and cooperative education. In 1972, the division of vocational education increased its allocation of funds for cooperative programs by 25 percent. In addition, a summer workshop especially for coordinators of these programs was held.

Problem V

Problem

Kansas has need for more and better workers in the field of health occupations. The State has no well-organized system of health education to supply this need.

Informed observers predict that some form of compulsory health insurance may be passed by the Congress in the near future. Since no current plans are designed to prepare personnel for the increased need that will surely develop, the council makes the following recommendations.

Recommendations.

12. We recommend that the State board of education urge the Federal Government, when making grants from other agencies to the health occupations programs in Kansas, coordinate such grants through the health occupations education section of the division of vocational education.

13. Expenditure of research funds to determine the current and future needs for workers in the health field would appear desirable.

14. We recommend that the division of vocational education develop and implement core-curricula guidelines for the array of occupations to serve the health care needs of Kansas.

Response of the State Board

The State board of education recognizes the need for strengthening all phases of vocational education and in particular the health occupations field. They also recognize the critical shortage of trained workers in the health field. The State board of education urges additional State financing for the development of teacher training programs in the health occupations field.

Progress Toward Implementation

1. The policy of direct grants to institutions by various Federal agencies is undesirable in that it is usually not included in the planning of the State board of education which is charged with the responsibility for statewide comprehensive planning of occupational programs.

The comprehensive plan for postsecondary education required under title X of the Educational Amendments of 1972, should alleviate some of this problem and contribute to the implementation of recommendation No. 12.

Numerous joint meetings of the State department of education and the Board of Regents have been held to explore ways of coordinating the development of these programs in the 4-year colleges.

2. Recommendation No. 13 has been implemented. The K–MUST report developed by Kansas State University with research funds provided by the division of vocational education includes a section on the manpower needs for health workers.

3. Work is progressing on the development of curriculum guidelines for those health occupations where this is appropriate. Many health occupations are licensed and the curriculum to be followed is prescribed by the licensing board and/or a professional accrediting agency.

4. Progress in strengthening the health occupations programs in Kansas has been made by the employment of a qualified teacher educator on the staff of the Kansas State College at Pittsburg, Kans.

Problem VI

Problem

The methods of motivating and instructing disadvantaged youth in the past have not met the needs of this segment of our student population. As a result, many leave school unprepared to hold or advance in a job. A high percentage of them are unemployed. In many cases they become delinquent.

Recommendation.

15. We recommend that high school graduation requirements be made more flexible to accommodate the differences in interest and ambitions of these students. It is further recommended that provisions be made to enable the disadvantaged youth to take advantage of work-study programs to earn money to enable him to stay in school.

Response of the State Board

The State board of education supports the philosophy that new methods of motivation and instructing disadvantaged youth must be implemented whether within the system of K through 12 or as an entirely new and different approach in working with these types of individuals. The board further supports the advisory council's recommendation that the high school graduation requirements be made more flexible so as to accommodate new and innovative programs designed to meet their particular needs. The State board of education further agrees that the educational needs No. 6 as listed in the SEEK project be expanded. It states:

> There is a need to formulate programs for the potential dropout, unmotivated student, or student who is alienated from school. Each school should utilize diagnostic techniques as early as possible to identify this type of student. One might suggest that there should be experimentation with such programs as work-study, on-the-job training, or self-actuating programs to determine how to identify and help such students.

It is of utmost importance to those students who do not fit the typical education structure. Further, the State board is presently developing a dropout proposal to be submitted to the U.S. Office of Education for funding. This proposal, if approved, would create within the unified school districts of our State, an entirely new concept for Kansas in working with the disadvantaged in developing a curriculum designed to their specific needs rather than a curriculum designed for the student who is going on to advanced degrees. This program should enhance the desires of the businesses and industries, labor organizations, and other interested groups in making jobs available from the private sectors so that students or trainees may begin to develop good working habits, entry level skills, and be motivated to earn while they learn as well as to be taxpayers rather than tax takers. For this reason, jobs should be planned and developed so that they not only can earn but also can obtain work experience and should be evaluated and credit given toward high school graduation with a work experience obtained.

It is a common knowledge that schools are conservative institutions and do not adjust readily to social change. Kansas schools are no exception. If State requirements are not flexible enough to make innovation and change easy for the school administrators, as well as the faculty, we will continue to be educating for the past instead of the future. The State board will continue to encourage flexibility at all levels of education in the State.

Progress Toward Implementation

1. *The Goals for Education in Kansas* include the following subgoals relative to disadvantaged students.

DROPOUTS

Subgoal—Each school district, community junior college, area vocational-technical school, and the Kansas Technical Institute should (1) determine the major underlying causes of dropouts in such district or school, (2) adopt a plan designed to make an early identification of potential droupouts, and (3) institute a program of preventive measures for the same. Cooperation should be instituted with private schools for the same type of program. (A dropout is a students who leaves school for any reason, except death, before he graduates or completes a program and does not transfer to another school.)

a. Objective—B[illegible]977 ( ) all school districts, community junior colleges, area vocational-technical schools, the Kansas Technical Institute, and private schools should put preventive programs into operation bringing dropouts back into the educational system.

ECONOMICALLY DISADVANTAGED

Subgoal—The relationship between the home and the school should be strengthened. The parents must be involved in a way such that they can provide input, support, and reinforcement for the learning tasks of the school.

a. Objective—By 1975 ( ) all program applications for specialized functioning of services for disadvantaged should include a section for plans, which should be cooperatively developed by parents, school personnel, and other members of the community who have a direct contribution to make.

ECONOMICALLY DISADVANTAGED

Subgoal—Evidence should be obtained on each child at the beginning of first grade and/or preschool to determine the level he has reached with regard to language, visual, auditory, and tactile approaches to learning.

a. Objective—By 1975 ( ) all program applications for specialized funding of services for disadvantaged should include a plan for a pre-education service evaluation to determine individual learner level of program readiness.

ECONOMICALLY DISADVANTAGED

Subgoal—A range of program organizations including basic academic skills and social skills of daily living which emphasizes continuous learning through problem solving should be in operation.

a. Objective—By 1975 ( ) performance objectives should place emphasis on relevancy of basic academic and social skills.

b. Objective—By 1975 ( ) problems from the everyday living of the economically disadvantaged should be identified which are amenable to use at varying levels of education as a learning vehicle.

While these goals are too recent to have influenced the programs for students, they do place the State board of education firmly in support of special treatment for the disadvantaged and handicapped student.

2. During 1972, the exemplary and special needs section of the division of vocational education sponsored and partially supported the following programs. These programs are described in detail under the section on disadvantaged and handicapped students.

a. Basic Learning Skills Centers.—Four currently in operation serving 445 educationally disadvantaged and handicapped students. Four additional centers are planned.

b. Vocational Exploration and Work Attitude Adjustment Programs.—These were nine special 8 week summer programs for students identified as potential dropouts or economically disadvantaged. 480 students were enrolled.

c. Training and related academics designed for economic security (TRADES).—This is a special program for disadvantaged secondary students operated by USD 497, Lawrence, Kan. 83 students were enrolled in fiscal year 1972.

d. Developing comprehensive competitive employment services for the physically handicapped.—This is a planning project carried out jointly by Wichita University and United Cerebral Palsy of Kansas.

e. Vocational education at the Kansas school for the deaf.—This is a planning project designed to provide better vocational education services for hearing impaired students at this school.

f. Special vocational program for Indian families.—A project designed to train outreach workers to assist Indian families. This project is a component of the new horizons project and is operated by the Seaman School District.

g. Vocational education for hearing impaired.—This program is operated by the Johnson County Community College and is designed to develop vocational education at the postsecondary level for students with hearing impairments.

h. Developing vocational education for the handicapped.—This is a coordinated effort by the Salina Area Vocational Technical School, the State division of vocational rehabilitation, and the special education section of the State department of education to develop vocational education programs for the educable mentally handicapped student.

Problem VIII

Problem

Career education needs cover such a wide range of educational levels that administrative cooperation in planning of vocational education on all levels is becoming very urgent if an orderly system of career education is to be developed without costly and needless duplication.

Recommendation.

16. The council recommends that the State board of education continue their efforts to work with the board of regents in planning in the field of career education to develop a constructive program that will avoid costly duplication.

Response of the State Board

The State board of education goes on record as supporting the continuation of the policy of career education programs requiring 2 years or less of posthigh school training remaining the exclusive responsibility of the State board of education. In the interest of economy and efficiency, those programs that a 4-year college under the board of regents is offering should come under the State plan, the same as other occupational programs.

The State board further supports the philosophy that if Kansas colleges and universities are to expand their occupational offerings, there must be coordination between the State board of education and the State board of regents. Without coordination of occupational education at the posthigh school level between the State board of education and the State board of regents, undesirable competition can and will result, thereby working to the detriment of the persons these systems are designed to serve.

Progress Toward Implementation

1. The State board of education has held several joint meetings with the board of regents and plans to hold more. The purpose of these meetings is to discuss the coordination of overlapping programs.
2. The State board of education has initiated the development of a comprehensive plan for postsecondary education in Kansas. The Educational Amendments of 1972 (S.659) will require that all postsecondary education of less than baccalaureate level be made a part of this plan.

Follow up of Recommendations

The Kansas Advisory Council for Vocational Education will plan to include a section of its annual reports to assess the response of the board and the progress made toward implementation.

To date, the council is pleased with the cooperation and consideration received from both the State board of education and the division of vocational education.

KENTUCKY

The council expressed twelve concerns and recommendations during fiscal year 1972. These were made a part of the 1972 State plan for the administration of vocational education; however, the plan did not show any responses to the recommendations.

The recommendations and the responses each received can be found in the following pages. The responses were prepared by staff members of the bureau of vocational education. In a few instances responses were shortened by this writer for the sake of brevity, but the substance of the responses remain unchanged.

I. Planning needs to be taken to the grass roots level—the ground work appears to have been well laid with State and regional staff; the problem training sessions are that and nothing more. Regional directors are concerned that planning does not receive proper attention at the local level and that teachers are not more involved in the process.

Since 1970, the bureau of vocational education has been holding regional meetings during the winter to assist local district and regional staffs. The major emphasis of these meetings has been on planning. The 1970 and 1971 meetings tended to be an academic approach to long range and annual planning. In 1972, these meetings were conducted for the benefit of teachers and administrators with specific small group sessions for each. The plans for 1973 are to involve all vocational teachers in these meetings and to assist them in making an input into local plans for vocational education.

In 1972 and again in 1973, there will be a 2-hour session with each regional staff and the vocational school administrators to discuss long range and annual plans for vocational education within each region.

II. Evaluation efforts must be strengthened, especially followup activities, if effective planning is to be achieved. It seems unrealistic to the council that vocational education administrators and teachers can effectively evaluate the success or failure of the programs they offer if they don't know where the former students are and what they are doing. If a lack of staff is the reason for this weakness. or if a lack of funds prevents the hiring of staff for this purpose, then the council strongly urges the bureau to reassess the responsibilities and duties of its present staff and make new assignments for them which will properly correct this weakness. If it is a lack of proper attitude, then it needs correcting. The council hopes that any plans for implementation and operation of a followup system presently underway in the bureau of vocational education will receive a high priority rating for fiscal year 1972.

In response to this recommendation the following actions were reported:

1. The implementation and operation of a followup system has been given a high priority rating.

2. Employment of additional staff to implement the system has been completed.

3. Arrangements have been made on a contract basis with the Center for Vocational and Technical Education at the Ohio State University to work with the Bureau staff in field testing and implementing the followup system. to write the necessary computer programs. and to provide computer processing of the data during the contract period.

4. A test report was produced during December 1972. and a complete report is expected by the end of January 1973.

5. Current plans are to meet with the industrial coordinators and regional directors for a planning session late in January or early in February.

III. "Growth and progress in vocational education create a continuous need for data, reliable, and valid data. from such sources as the Bureau of Rehabilitation Services, Department of Economic Security and its divisions associated with human resources development. Departments of Labor, Child Welfare, Health, Corrections—and data from any other source which reflect the needs of people and would serve a useful purpose in human resources development. Vocational education, particularly at the regional level, must have immediate access to data of this nature to effectively carry out its mission. We urge that the Research Coordinating Unit of the Bureau be actively engaged in making such data available for planning purposes."

The occupational information unit is in the process of establishing a comprehensive data system which will utilize input from various State agencies as well as collecting base line data on needs of people throughout the State. When the system is fully operational, data for planning purposes will be available for State, regional, and local level vocational education personnel and will provide for the use of other agencies as requested.

IV. "There should be a greater concentration of effort immediately to help teachers work more effectively with the handicapped and disadvantaged * * * "

Emphasis was placed on staff development through conferences, inservice sessions and workshops for teachers of the disadvantaged and handicapped. Emphasis was also placed on planning, developing, and implementing programs, services and/or activities.

One of the major achievements of the year was the initial thrust for developing curriculum materials to use with the disadvantaged and handicapped in level I programs, "Orientation in the World of Work." Five classroom teachers for handicapped and eight for the disadvantaged participated in the curriculum workshop. Completion of the units and field testing will be finalized during the 1972-73 school year.

V. (a) "That vocational education continue in its efforts to orient teachers to effectively work with handicapped and disadvantaged students. We encourage frequent visits by central office staff with local teachers and administrators and feel that the greatest help could come through supportive services and actual classroom visitation to discuss materials, equipment, and techniques as they would apply to given situations."

This fiscal year onsite visitation has become a top priority of the Bureau of Vocational Education through reorganizing the Special Vocational Education Division (Special Vocational Functions Unit) from programing to management; therefore, assuming a monitoring role. Presently 40 percent of the Special Vocational Functions Unit staff time is spent in monitoring or onsite visitations. Team visitation with other programs area units; such as, agriculture, business and office, etc., is also encouraged. Assistance in monitoring is provided by the coordinators of vocational education programs in the regions.

V. (b) "We also urge the creation of evaluation systems that will measure how well programs in these categories are removing the deficiencies of the disadvantaged and in helping handicapped persons overcome any handicap they may have which has prevented them from finding employment or advancing in their field of work."

Evaluation is conducted on an annual basis utilizing evaluation forms. The Special Vocational Functions Unit has requested that the Vocational-Technical Resources Development Unit of the Bureau of Vocational Education assist in evaluating or contracting with other agencies, institutions, or individuals to conduct evaluation research of specific programs for the disadvantaged and handicapped.

VI "That the Bureau of Vocational Education, with assistance from the regional directors, prepare an operations manual which will clarify in the minds of all vocational education administrators the duties and responsibilities of each and his proper role and relationship to the present concept of vocational education. Such a manual should serve a purpose in eliminating any duplication and overlapping of duties and responsibilities which exist and help bring the regional concept of vocational education in proper perspective."

The first draft of this manual is to be completed by February 1, 1973, and the project finished by June 30, 1973. The project is on schedule. Seven of the thirteen sections of the manual are already in the hands of a committee for their reaction and field testing. The other six sections will be in their hands by the end of June 1973.

The reacting and field testing committee will report its findings by March 1973. Between March 1 and June 30, final revisions will be made and hopefully all duplications, inconsistencies and most of the lacks will be eliminated. The manual is a looseleaf document which will permit pages to be removed and new ones inserted when policies, regulations, or laws are changed. This manual will be used by the State and regional staffs in vocational education in administering vocational programs in the State.

VII. "That vocational education reevaluate its requirements for graduation and study the possibility of instituting a reliable testing procedure which will help determine the readiness of students to enter employment. It is recognized that some students may require more hours of instruction before adequately trained, some less."

The Bureau of Vocational Education recognizes the need to develop alternate completion criteria for vocational education programs. The establishment of such alternatives requires considerable study and testing. An EPDA project is approaching completion in the Somerset vocational region. This project is to develop behavioral objectives for modules of each of the vocational programs in the region. Such information may be used in other regions of the State to test the validity of the objectives and instruments used in the measurement.

VIII. "That the legislature reassess the value of vocational education in its role of supplying manpower for Kentucky's immediate and future needs and that the budget for the coming biennium reflect an awareness of this role. Vocational education cannot do the job it has been charged to do with the resources presently available to it. The legislature should appropriate sufficient funds to allow for the expansion of both upgrading and preparatory programs especially at the postsecondary and adult levels on a broad, statewide basis which would be offered in the evening hours. Not only would more people be served, but, in addition, they could be served in existing vocational and industrial facilities and in an economical fashion without additional construction. We further recommend that vocational education explore the use of all community resources and work toward cooperative arrangements with local businesses and industries and individuals to assist in the financing of the total cost."

The Bureau of Vocational Education supports the concept that more funds are needed to operate existing vocational facilities on evening shifts for postsecondary and adult students. The 1972 legislature appropriated a small amount of funds by line item for the purpose of adult vocational education programs. These funds are still inadequate to meet the needs for adult training.

The Appalachian Regional Commission permitted for the first time in 1972 the use of ARC funds for operation of vocational programs. Funds are being used to operate several postsecondary evening programs and adult programs throughout the 49 Appalachian counties.

There are many efforts currently being made to utilize community resources. The cooperative vocational education program is expanding in all program areas throughout the Commonwealth with major emphasis being given to the more urban areas of the State.

IX. "It was recommended following discussion pertaining to the many problem areas confronting vocational education, that Dr. Lamar identify the specific problem areas in which he has concern and request the staff of the research coordinating unit, of the University of Kentucky, to become involved in finding the solutions to these problems."

A list of 17 questions or concerns has recently been received from Dr. Lamar and the State advisory counsil. This list has been circulated among selected staff of the Bureau and a schedule is being prepared for these individuals to make presentations to the Council at the Council's convenience. Although information may not be currently available to answer all of the questions, the strategy of attack can be outlined with answers being supplied as soon as they become available.

X. "That a study, to be conducted by an independent group, be made of the west Kentucky vocational education situation, and request that the study results and recommendations be brought before the Council for comment."

A study has been made by Booz, Allen and Hamilton, Inc., management consultants of Chicago, Ill.; on the organization and management of vocational education in the purchase area.

A preliminary report of the study was given to the State board of education. The final report will be presented to the members of the State board of education at the next scheduled meeting of the State board on January 8 and 9, 1973.

XI. "That regional advisory committees appointed by the State board of education, be identified in the State plan specifically as the Advisory Councils referred to in certain sections of the State plan. For example, part I."

Regional Advisory Committees should be emphasized more in the Kentucky State plan for the administration of vocational education. In part I of the State plan where the regional advisory committee is referred to as an advisory committee, the word "Regional" should be inserted. For example on page 52, section 3.2-5, the first sentence should read:

> The regional long-range plan, including the plan for each local educational agency, shall be prepared in consultation with *the Regional Advisory Committee* representative of people knowledgeable about the population groups to be served and persons knowledgeable about vocational education.

Instead of:

> The regional long-range plan, including the plan for each local educational agency, shall be prepared in consultation with *an advisory committee* representative of people knowledgeable about the population groups to be served and persons knowledgeable about vocational education.

XII. "That vocational education investigate the possibility and feasibility of expanding vocational education to include any high school student who is interested in and ready for vocational education."

The Bureau of Vocational Education has prepared administrative regulations for submission to the State board of education to remove the 16-year-old age limit for high school students to attend vocational schools. There may still be age and/or grade requirements for selected programs but there should be some programs in most vocational schools open to students at an earlier age.

Should the State board of education approve these regulations, it is anticipated that some schools without transportation problems might change the age and grade requirements while at the same time altering the length of class period. Such changes would be carefully observed and evaluated to determine if these changes should be generally adopted throughout the State.

MARYLAND

Advisory Council Recommendation

The State board of education join efforts with the departments of employment and social services and economic and Community development in developing a statewide system of collecting and distributing data on current and projected manpower needs.

State Board Consideration of Recommendation

Currently, the division of vocational technical education is engaged in cooperative efforts with the State department of planning and department of employment security for determining current and projected manpower needs. A comprehensive study of need has been initiated and provided information which has been distributed to all local agencies for use in planning occupational education. This format of their study is currently being applied to 1970 census information to update current and future needs. Information from the study will be available during fiscal 1973.

Advisory Council Recommendation

The State board of education and the Maryland State Board for Community Colleges establish a policy for implementation of functional responsibilities for the State board for community colleges in vocational-technical education.

State Board Consideration of Recommendation

The present State plan part I designates the Maryland State boards of Education as the sole agent for administration and supervision of vocational-technical programs. The division of vocational-technical education cooperates with the State board for community colleges in approval and operation of vocational-technical programs at the postsecondary level.

Advisory Council Recommendation

The need for community involvement in planning and administering local programs continues to be stressed with special emphasis placed on the utilization of local advisory councils.

State Board Consideration of Recommendation

The State recognizes the need of local involvement of advisory groups and has directed the division of vocational-technical education to publish guidelines for utilization of local advisory groups.

In addition, each local plan consists of a section that reflects advisory group memberships and activities.

Advisory Council Recommendation

The State board of education and its staff make a careful study of career education and establish its goals and priorities in relation to its responsibilities in providing this part of every student's education, and how it can best carry out this responsibility.

State Board Consideration of Recommendation

The State board has by resolution established career education as one of the priorities for the department of education. Budget requests for State funding have been initiated.

Advisory Council Recommendation

The State board of education develop a policy toward job placement of students as a part of its educational responsibility.

State Board Consideration of Recommendation

The State board of education in accepting the responsibilities of vocational-technical education and the act of 1968 has an established policy regarding placement of students as part of its educational responsibility (Federal Register vol. 35 sec. 102.8 and appendix B of this plan).

Advisory Council Recommendation

The state board of education and its staff arrange for the development of a program to help build a favorable image toward the world of work and vocational-technical education. Such a program should include a series of workshops for school administrators, counselors, and teachers. Emphasis should be placed upon information about employment opportunities, educational requirements, economic, and other benefits of the various vocations with primary attention devoted to those jobs requiring less than a baccalaureate degree. The workshops should involve extensive dialog between educators and representatives of business, industry, labor, government, and other lay groups.

State Board Consideration of Recommendation

The State has taken steps to assure a favorable image toward the world of work and vocational-technical education. Currently, a conference is scheduled for June 27–28 for local administrators, counselors, and teachers to introduce the aspects of career education.

An apprenticeship handbook is being prepared for distribution to schools for use of students, teachers, and administrators. The State and the Governor annually proclaim vocational education week and various activities are conducted in vocational facilities statewide to improve the public image of vocational education and the world of work. Vocational youth groups and activities (FFA, FHA, FBLA, and DECA) are encouraged and supported by the State to enhance the image of work and vocational education.

Advisory Council Recommendation

The State plan contains more realistic goals accompanied with a description of the steps and a timetable associated with reaching each respective goal.

State Board Consideration of Recommendation

The new State plan format rejects the recommendations of the advisory council.

Advisory Council Recommendation

A midyear and yead-end status report be prepared and distributed on those goals included in the plan.

State Board Consideration of Recommendation

A yearly descriptive and statistical report is prepared and submitted to the Federal Government. This report has been provided for the advisory council review.

Advisory Council Recommendation

The goals of the State plan be integrated with and become a part of the overall goals for education in the State.

State Board Consideration of Recommendation

Bylaw 342:1 is enacted annually as goal objectives and activities of the division of vocational-technical education. In addition, the current department of education planning system is designed to incorporate all goals of education in the State.

Advisory Council Recommendation

The State board of education make a greater commitment to vocational-technical education by clearly establishing its priorities in that area and by allocating an increased percentage of its bubget to that end.

State Board Consideration of Recommendation

The State board has made a commitment to vocational-technical education through emphasis of career education which is reflected in one of its earlier considerations in this report.

Advisory Council Recommendation

The State department of education develop a procedure which will permit notification to local systems of expected vocational allotments within a minimum period of time after Federal allocations are made to the State.

State Board Consideration of Recommendation

The division of vocational-technical education is presently initiating and considering procedures which will expedite notification of vocational allocations to local systems.

MASSACHUSETTS

Findings

Experience gained over the past several years and especially during the year 1972 discloses that each and every recommendation made by the council has received consideration by the division of occupational education. This review has included not only the problems of implementation but also the rationale for its presentation. There has been no casual dismissal treatment of council recommendations, rather it must be pointed out that every recommendation has received due consideration.

It must be pointed out that the council is advisory to the board of education and the council's recommendations are to the board of education (Public Law 90-576, title I, pt. A, sec. 104 (b) (1) (C) and (D)). In compliance with the council's mandate the 1971 evaluation report was forwarded through the State board of education to the U.S. Commissioner of Education so that the State board of education may append such additional comments as they deem necessary. To date, the council has not heard directly from the State board of education in relation to the 1971 evaluation although we were informed that the associate commissioner would reply, which he did, in the spring of 1972. It is the council's opinion that the board of education cannot delegate their responsibility to this extent. We would hope that the board would discuss their reactions to this evaluation directly with the advisory council in a manner more consistent with the intent of Congress as expressed in Public Law 90-576.

1. List the council's previous year's recommendations. What action has resulted from each of these recommendations?

The council has received replies from the division of occupational education on action taken in answer to each recommendation made by the council in the 1971 evaluation. Each recommendation is listed herein as is the answer made by the division of occupational education. Following each of the answers is the council's findings on the subsequent implementation of each recommendation through June 30, 1972.

Council 1971 Recommendation

Identify program elements which require interdivisional coordination on a continuing basis and develop a process to provide the appropriate staff interaction.

Answer

A planning model was developed in February, 1972, which has been adopted by the division for the formulation of goals and objectives and provides a uniform reporting procedure. The planning office is now able to pinpoint program elements which require interdivisional coordination on a continuing basis. A process to provide for appropriate staff interaction is presently in the planning stage.

Council 1972 Findings

Substantially correct. Planning for appropriate staff interactions is now complete and hopefulyy will prove effective.

Council 1971 Recommendation

Use a task force structure to carry out projects which have both an impact on more than one bureau's operation and a well-defined terminal point. Staff personnel should be assigned to a task force until completion of the project. The task force should have a well-defined authority structure with each member held accountable for completion of specific parts of the project. Assignments to the task force must necessarily cut across the bureau structure.

Answer

The task force has been made the mode of operation since the present commissioner took office, December 1, 1970. The five divisional committees, (a) policy manual, (b) personnel, (c) State plan, (d) project funding, and (e) finance are still in operation, and in addition to these, other task forces have been formed on a temporary basis to answer divisional needs as defined by priorities set by the associate commissioner.

Council 1972 Findings

Substantially correct. Task forces are being utilized effectively.

Council 1971 Recommendation

Give top priority to the development of a manual of division policy which can be used as a guide to ongoing operations and a basis for articulation of goals and objectives.

Answer

Two procedures for the guide to ongoing operations, the planning model and the procedure for the processing of proposals, have been put into use by the division. Other procedures for the manual of division policy are in varying stages of completion. These include revision of curriculum specification for new construction, approval of construction and remodeling of training projects, revising the instrument now in use for evaluating programs in the LEA's and a procedure for recording data extracted from grant application forms to assist analysis of cost benefit and cost effectiveness.

Council 1972 Findings

Complete manual of division policy has not been compiled as of August, 1972. The division of occupational education is utilizing its full energies for early completion.

Council 1971 Recommendation

Develop a revised statement of division goals which not only account for all goals assigned by the department of education, but also define goals implied in Federal and State laws and which reflect the policies and philosophy guiding division operations. Concentrate on standards to be achieved.

Answer

The division of occupational education has a written set of goals with a description of activity, a statement of who is accountable, a target for completion and a stated measure to evaluate goal attainment. The formulation of goals is a successive refinement of broad goals tied to imperatives set at department of education level, through division and bureau levels, down to the individual office levels within each bureau. A definition of division goals is now and will continue to be an integral part of the State plan.

Council 1971 Recommendation

Require each bureau and staff chief to develop objectives and tasks directly related to division goals with reference to the standards to be achieved. Division policy should allow the bureau or staff chief to indicate which goals are speculative by inviting a statement predicting probability of success. Such statements must necessarily describe the basis for prediction.

Answer

We are combining this handbook with the manual of division policy. A tentative date for the preliminary draft is December, 1972.

Council 1972 Findings

Handbook is in process of active formulation in combination with the manual of division policy. It appears that the division of occupational education will meet its deadlines.

Council 1971 Recommendation

Assign specific tasks to each member of special committees to insure full participation in solving the problem or developing the operation for which the committee was formed.

Answer

Refer to recommendations in paragraph 2 under section on providing greater flexibility to the organizational structure of the division.

Council 1972 Findings

This item is complete as procedure outlined is being followed.

Council 1971 Recommendation

Develop an inservice training program to familiarize the entire professional staff of the division with policy changes and new operational procedures.

Answer

The coordination of divisional activities takes place at the bureau chief level at weekly meetings and also through the activities of the task force approach to evaluate program progress. Policy changes and new operational procedures are adequately interpreted.

Council 1972 Findings

Review of this subject area indicates much progress. Although the massive number of programs are, because of sheer bulk, utilizing the majority of staff time, coordination of Divisional activities is proceeding satisfactorily.

Council 1971 Recommendations

Implement a formal system of coordination of program applications between operational bureaus, offices and advisory committees which have an interest in the proposal. Amend the organizational chart and job descriptions to reflect these interrelationships. Develop job aids such as flow charts and check lists to facilitate proper handling of program applications within the Division.

Answer

The new procedures for routing LEA applications for funds takes into account the new division structure. The applications, addressed to the associate commissioner, are first routed to the office of planning and evaluation where they are briefly reviewed to make certain there are no obvious ommissions, assigned a project number, and routed to the appropriate operational supervisor through his bureau chief. The bureau chief notes whether or not the applications should be coordinated between officers within his bureau or with officials in other bureaus. The application then flows down to the designated supervisor for a thorough check on completeness, for budget adjustment and for recommendations. Once a number of applications in a specific occupational area of special category are accumulated, they are presented to an ad hoc advisory committee for review. These committees are composed of division professional staff members, officials from occupational education institutions throughout the Commonwealth, and various other concerned citizens, many of whom are professionals in the field. Each committee has from five to seven members. There are committees for each area of specialization within each category of the act:

A. Consumer and Homemaking Education
B. Cooperative Education
C. Programs for the Socio-Economically Disadvantaged
D. Programs for the Physically Handicapped
E. Postsecondary Occupational Education
F. Business and Office Education
G. Guidance and Counseling Programs
H. Secondary—Non-business Programs.

Council 1972 Findings

Review of the system described above by the council indicates satisfactory response to the recommendations. The ad hoc committees reviewing applications within their specific areas of interest are performing very well.

Council 1971 Recommendation

Provide up-to-date information of restrictions on program development which are imposed through contractual obligation between local education agencies and their staffs.

Answer

The senior supervisor, resource development, will disseminate all changes as they occur to the bureau chiefs and supervisors. This office was charged with this responsibility effective July 1, 1972.

Council 1972 Findings

Evaluation reveals the design of a system for dissemination of these changes is in process but the target date for completion is assumed to be later than July 1, 1972.

Council 1971 Recommendation

Work to influence the school construction aid grants by making them contingent on submission of short and long-range plans to house occupational training in the new facilities.

Answer

A series of meetings has been forecasted between the school building assistance bureau and the supervisor of facilities. This matter should be resolved during the summer of 1972.

Council 1972 Findings

Long term illness of the senior supervisor involved has held up this action. As of August 8, 1972, renewed attempts are being made to resolve this problem.

Council 1971 Recommendation

Hire external financial consultants to assist in developing a new funding distribution formula.

Answer

A new Federal funding distribution formula for fiscal year 1973 was reviewed with the State advisory council in January 1972, and adopted shortly thereafter.

Council 1972 Findings

The new funding distribution formula has been implemented and the Council believes this formula will distribute Federal funds more equitably.

Council 1971 Recommendation

Utilize a task force approach to evaluating program progress rather than rely solely on evaluations by division supervisory personnel. (The council on handicapped programs is one approach.)

Answer

Programs will continue to be evaluated by supervisory personnel hired for the purpose. Evaluations made by the State advisory council, council on the handicapped programs, and council for the disadvantaged will supplement this effort for fiscal year 1972. It is expected that this effort along with the services of additional consultants in specialized areas will be employed.

Council 1972 Findings

Review of the answer to this recommendation has revealed that a gap exists in this evaluation scheme in that the programs funded to the post-secondary (community colleges) institutions are not subject to ongoing evaluation by the Division. Council observations indicate little or no evaluation is made by the division in community colleges.

Council 1971 Recommendation

Emphasize the technical assistance role of the program supervisor, helping local agencies to develop proposals and disseminating new ideas.

Answer

This effort began in fiscal year 1972, conducting six workshops at the regional offices for the purpose of proposals for fiscal year 1973 Public Law 90–576 funds. This effort was extended by having the supervisors contact proposed applicants for the purpose of improving the quality of the applicants proposal.

Council 1972 Findings

Council reviews indicate the procedure outlined above is operating efficiently and is satisfactory.

Council 1971 Recommendation

Review and Amend part F of the fiscal year 1972 State plan to meet more directly the professional development needs imposed by the emphasis on massive expansion of disadvantaged and ethnic minority group enrollments.

Answer

Professional development has increased enrollment of 1970 teacher-trainees of disadvantaged and ethnic minority groups: Boston State, 75; Tufts, 45; Fitchburg 50 (State plan amended to support action).

Council 1972 Findings

The council's review of this answer reveals the 1972 State plan has satisfactorily complied with the recommendation. Evaluation of program participants demonstrate a high degree of professionalism in the development system. The council views this increase in enrollment as most beneficial.

Fill the operational vacancy of supervisor of pupil services.

Answer

Vacancy of supervisor of pupil services still exists. Position has to be filled.

Council 1972 Findings

Vacancy has been widely advertised and as yet no qualified applicant has accepted. Basic reason for the vacancy is the low salary structure. Council feels this situation will continue to exist until salary structures are amended upward.

Council 1971 Recommendation

Develop staffing qualification requirements in pupil services statewide and feed this information through the bureau chief to the Office of Professional Development for inclusion in part F of the State plan.

Answer

Staffing qualification requirements have been developed and included in part II of State plan.

Council 1972 Findings

Action completed satisfactorily in this area.

Council 1971 Recommendation

Develop plans so that at least two career information centers will be operational in fiscal year 1973.

Answer

Career information centers are being developed at present.

Council 1972 Findings

Project career is establishing these centers in fiscal year 1973. Review indicates satisfactory progress.

Council 1971 Recommendation

Establish a formal administrative structure (and amend the 1972 State plan to reflect this change) to ensure that the office of the disadvantaged has final approval not only over the 15% of part B funds and section 102(b) funds, but also over the 33⅓% of consumer and homemaking funds mandated by Public Law 90–576.

Answer

The State plan reflects the formal administrative structure recommended in reference to 15% of part B Funds, section 102(b), and the 33⅓% of consumer education and homemaking.

Council 1972 Findings

Council evaluation finds the administrative structure implemented is operating satisfactorily.

Council 1971 Recommendation

Create a new, broadly based ad hoc committee to review proposals for funding of all programs in all program offices involving disadvantaged and minority group members.

Answer

Each office in bureau has ad hoc committees to review all proposals submitted.

Council 1972 Findings

Rather than creation in a new ad hoc committee the division feels its solution to the problem is best. Evaluation indicates division's system is performing adequately.

Council 1971 Recommendation

Attempt to broaden the programs in the handicapped section to reflect the statistical distribution of impairment.

Answer

The office of the handicapped has developed strong lines of communication with the local educational agencies to submit proposals which represent each group of the handicapped population. Specifically, the increased proposals have been submitted for the blind, deaf, emotionally disturbed, and physically impaired. There have already been established sufficient proposals for the retarded.

In addition to the above groups of handicapped individuals, the office of the handicapped has established a concern for vocational training for the drug dependent, alcoholic, and elderly handicapped. By focusing on these latter three groups, the office of the handicapped recognizes the need to guide its funds into the new and urgent needs of society. This latter point was also discussed in Washington with the appropriate personnel from the Bureau of Adult, Vocational and Technical Education and they have concurred that it is highly appropriate to consider the use of vocational educational funds for these populations.

Please note the Public Law 90–576 definition for the handicapped: Mentally retarded, hard of hearing, deaf, speech impaired, and other health impairment. The latter three words encompass the populations classified as drug dependent, alcoholic, and elderly handicapped.

Council 1972 Findings

Council evaluation in this emphasis area has been thorough. It finds good planning and accomplishments.

Council 1971 Recommendation

Establish administrative agreements with the School Building Assistance Bureau and the Department of Public Safety to ensure that all future facilities meet the requirements of the Architectural Barriers Act (ch. 7–24, acts of 1967).

Answer

Discussions have taken place with Mr. James Burke, senior supervisor, Office of Facilities and appropriate personnel from the School Building Assistance Bureau, and the Department of Public Safety. The results of these discussions are that the Department of Public Safety has established a definite procedure which would insure that the architectural specifications that would specify provision for the handicapped in all public facilities.

Council 1972 Findings

Procedure has been established and is operating satisfactorily.

Council 1971 Recommendation

Establish a dissemination mechanism for the results of successful projects for the handicapped so that rapid expansion of opportunity for such students may ensue.

Answer

The office of the handicapped has established an occupational educational staff council and seven regional coordinators. These two groups convene periodically and discuss the qualities which are inherent in the programs.

In addition to the above two groups, the office of the handicapped in collaboration with Westfield State College will develop four regional workshops which will provide a clearinghouse of the exemplary characteristics which exist in the occupational programs for the handicapped. These characteristics will be documented in the following manner:

1. Slide tape presentations.
2. Film.
3. Monograph.
4. Publication: "Massachusetts Vocational Educational Opportunities for the Handicapped."

The above four documents will be available for wide dissemination to public schools, area and regional vocational high schools, State institutions, industry, and local civic groups.

Council 1972 Findings

The publication, "Massachusetts Vocational Educational Opportunities for the Handicapped," has been pubilshed and distributed. The slide tape presentations, the film and the monograph are in process. All other tasks included in establishment of a dissemination mechanism have been complied with.

Council 1971 Recommendation

Fill the vacancy of supervisor of youth organizations.

Answer

Youth organizations position has been filled.

Council 1972 Findings

See council findings in section on Occupational Youth Organizations concerning this subject.

Council 1971 Recommendation

Establish the appropriate linkages with other program offices and the bureau of research so that the supervisor of youth organizations may implement the requirements of his description.

Answer

Supervisor has established linkages with other organizations in the Commonwealth (in the target areas of State).

The above four documents will be available for wide dissemination to public schools, area and regional vocational high schools, State institutions, industry, and local civic groups.

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Answer

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Council 1972 Findings

See council findings in section on Occupational Youth Organizations concerning this subject.

Council 1971 Recommendation

Establish the appropriate linkages with other program offices and the bureau of research so that the supervisor of youth organizations may implement the requirements of his description.

Answer

Supervisor has established linkages with other organizations in the Commonwealth (in the target areas of state).

Council 1972 Findings

See council findings in section on Occupational Youth Organizations concerning this subject.

Council 1971 Recommendation

Initiate plans for inservice training in the division to familiarize personnel with the use of the emerging information and evaluation systems.

Answer

The following list identifies selected RCU efforts to inform division professional personnel with use of emerging information and evaluation systems.

1. Planning sessions between RCU and bureau of special needs have been undertaken to develop potential middle-level leadership among the disadvantaged. Such exemplary research programs would involve division specialists in skills training for the disadvantaged and also in research development procedures. Operational information pertaining to existing part C and part D activities would be included.
2. Activities have been initiated to document and disseminate basic statewide data collected by the research coordinating unit, department of education to all schools receiving Public Law 90-576 funds.
3. Research coordinating unit's coordination of management (MISOE), curriculum (Project CAREER), evaluation (ESCOE), and information (CEDIS) activities have been initiated via published documents and on-site visits. Integration of State level, part C research activities with ongoing division operations is anticipated. Division specialists have been consulted by the various project staff members.

Council 1972 Findings

Plans have been started and inservice training is proceeding.

Council 1971 Recommendation

Develop a coordinated effort to search out schools and agencies which have already developed behavioral objectives pertinent to occupational education.

Answer

Project CAREER has undertaken a detailed and systematic search for sources of performance objectives and has amassed a sizable collection.

Council 1972 Findings

This search is ongoing and will continue. Evaluation has noted sizable collections and progress in this area is proving to be beneficial to the implementation of the recommendation.

Council 1971 Recommendation

Develop a master plan of research and development activities which describe the purpose of the task and how it will be integrated into division operations, as well as how the several developing systems will fit together.

Council 1972 Findings

The answers to this recommendation are too voluminous for reproduction here. The council has conducted a thorough evaluation of this area. With the energetic support of the associate commissioner of the division, the director, research coordinating unit, has formulated a master plan. It is believed to be very comprehensive and is to be tested in fiscal year 1973.

Council 1971 Recommendation

Relocate the research center unit to facilitate a closer working relationship with the rest of the division. Responsibility to insure the RCU activities are integrated with the division of research of the department of education should be assigned to the research bureau chief. However, he need not be physically located with that division to insure proper integration. It is more important for the RCU's activities to be integrated with those of the division of occupational education.

Answer

The RCU was physically relocated at the division of occupational education on March 15, 1972. Plans for integration of RCU activity with the division's personnel are being prepared. The office of resource development is presently organized on the division of occupational education planning table under the bureau of administrative services. This office should be relocated under the bureau of RCU for purposes of accomplishing this item.

Council 1972 Findings

All activities relating to the recommendation have been accomplished. The division's comment expressing an intention of relocating the office of resource development from the bureau of administrative services to the bureau of the research coordinating unit has not been initiated.

2. What factors influenced the success or failure of implementation of the recommendations?

Findings

Close scrutiny of the division of occupational education planning and operation shows a willingness to profit from recommendations emergent from a consensus of those genuinely interested in the pursuit of improved vocational systems and offerings.

The difficulties in facing up to and finding workable solutions to these numerous problems at times may seem to outsiders to be less severe than portrayed, but to the advisory council they are most real. The recommendations made by the council are motivated by a deep concern for the improvement and expansion of occupational education. The division of occupational education after diligent exploration into the contents of each recommendation complied in most instances. In the areas where compliance was not effected, it is noted by the council that time and/or policy—Department of HEW—constraints militated against completion; also policy decisions by the Division in some cases reflected their desire not to follow a specific recommendation's avenue of approach but substitute their own solution to the problem. The council takes note of this and understands the division's desires and generally found that the solutions were adequate.

In summation, since the appointment of the council in 1969, no single factor may be singled out which has influenced the success or failure of cooperative effort. Instead, what has developed is a feeling of mutuality in that both the division and the council have the same goals although occasional differences of opinion may arise as to the best approach to solutions. The council believes this is beneficial and conducive to the refinement of upgrading of vocational offerings.

Recommendations

Encourage the board of education to continue to foster a spirit of cooperativeness between the department of education and the council.

3. What followthrough is being maintained by the council, e.g., reediting, resubmission, new areas for recommendation?

Findings

The council is developing an ongoing methodology to view the progress made in occupational education, especially in the areas of response to its recommendations. The council's committees have had considerable impact in their areas of concern. In their various committee meetings alone or in concert with the leaders of vocational education these committee members have worked hard and long at their accepted tasks. The council staff is principally responsible to assist this close relationship. Latitude has been given to council staff to create and maintain very close and cordial relationship with all matters and personnel involved in the statewide system of occupational education.

Recommendations

None.

Audit of Programs

Findings

The field audit section of the division of occupational education is undermanned. Public Law 90-576, has provided the Commonwealth of Massachusetts with over $27.5 million over the past 3 years. Hundreds of programs are being audited by an extremely small staff who can barely keep abreast of the massive work load.

Recommendations

That the board of education staff the audit section of the division of occupational education to enable prompt and effective audit of programs.

MICHIGAN

Findings

The second annual report of the Michigan State Advisory Council for Vocational Education contained several recommendations. Many of these recommendations were fully implemented during fiscal year 1972 and work on others was initiated. A minority of the recommendations were not acted upon. This section contains a brief report of the actions which were taken on the recommendations.

Planning

In terms of planning, the council made three recommendations: (1) Develop employment projection techniques; (2) make greater use of private resources on a contractual basis; and (3) develop an inventory of private schools to be used by public schools. The vocational education and career development services and the State board of education itself have moved decisively ahead on all three recommendations.

Operation

With respect to operation, the council made two overall recommendations: (1) That services for the disadvantaged and handicapped be improved and expanded; and (2) that the image of vocational education be enhanced.

It is apparent that vocational education services for the disadvantaged and handicapped have improved since the council's last report. However, the vocational education and career development services should have made greater strides in identifying effective programs and disseminating this information across the state. In addition, more attention should have been paid to the services provided to the handicapped.

The council's charge to all agencies concerned with occupational education that they do all that's possible to enhance the image of vocational education has been taken quite seriously. During the last year, vocational education appears to have gained public respectability that was not evident in other years.

Evaluation

The council made three recommendations on the evaluation of vocational education. These involved: (1) More timely guidelines on evaluation from the national advisory council for vocational education; (2) better reporting of data; and (3) equal educational opportunity. In general, the 1970–71 recommendations were acted upon in a positive manner.

Other Recommendations

As a result of the study on the opinions about vocational education, the State advisory council for vocational education recommended that: (1) Every Michigan school provide occupational guidance counseling, and placement services; (2) the State board of education study the present practices and programs of teacher education to determine their adequacy and appropriateness in relation to the tasks of providing occupational education; (3) the State department of education promote curriculum development, adaptation, and implementation to meet the needs of local programs; (4) the State board of education promote greater public awareness of the availability and advantages of vocational education; and (5) students, parents, and employers should be involved along with teachers and other school personnel in planning and assessing occupational education programs.

Council members were pleased that the first four recommendations were most definitely acted upon. With regard to No. 5, the expertise of students, parents, and employers must be brought to bear on vocational education programs. This has not been done to any great extent.

Summary

In general, the recommendations set forth in the second annual report received careful consideration by those responsible for providing skill training to the citizens of Michigan. The council hopes that in the future the spirit of cooperation developed in Michigan will continue to grow.

Concluding Statement

The Michigan Advisory Council for Vocational Education is composed of volunteers from many walks of life. In general, advisory groups to governmental agencies function effectively only when they are utilized to the fullest possible extent. Fortunately, in the case of Michigan's council, council deliberations have importance beyond that prescribed by the 1968 vocational amendments. The Council has every expectation that these circumstances will persist over time.

MISSISSIPPI

Recommendation

Take positive action to increase the utilization of physical plant facilities and instructional staff in all secondary and postsecondary vocational and technical centers where enrollments and completions are at a level of less than full capacity.

Response

Concerted effort has been, and is being, made to fully utilize all available facilities in all institutions. This includes increased emphasis on recruiting by State and local staff members; major surveys in some school districts on availability and interest of students; increased emphasis on guidance programs and prevocational programs have assisted in these efforts to the end that enrollment this year in all programs is up considerably over last year.

Recommendation

In writing local plans statements should be made in a specific manner as how training objectives will be met. Continued effort should be made to improve local plans with respect to organization, content and physical makeup, particularly in the secondary programs.

Response

A change in format of the local plans to reflect required changes in the State plan will bring about the recommended planning. It is felt that the local plan, just as the State plan, will now become a planning document rather than a compliance document.

Recommendation

Postsecondary schools that do not offer programs of instruction in agriculture and related fields (16 of the 20) should make a careful determination by surveys of the need for programs of training in agriculture to include all aspects of production, management, and related agribusinesses.

Response

Every effort is being made to get comprehensive surveys of vocational needs made in each of the junior college districts. As these surveys show need for training in agriculture or any other occupation, and an interest on the part of students in any of these occupations, immediate steps will be taken to develop programs.

Recommendation

Data from the employment security commission local offices and that from the various Development Districts, Inc., Delta Council, etc., should be supplemented by data gained by making surveys of the patronage areas of the schools to determine job opportunities, manpower needs and for use in overall program planning.

Response

See third response.

Recommendation

In centers where curricular materials are inadequate initiate action to develop curricular materials for all programs of instruction and maintain in a current status. Effect a closer interaction with the coordinating curriculum unit at Mississippi State University.

Response

Curricular materials for vocational education in Mississippi are developed and disseminated through the curriculum coordinating unit that is housed at Mississippi State University. Every effort is being made to increase the production of this unit and to effect an adequate dissemination process for curricular materials.

Recommendation

It is urged that the conferences initiated in January and February of 1971 in two junior colleges for developing plans for coordinating and articulating instructional programs be followed with conferences in the other 14 junior college districts of the State, and that personnel in general education be involved in a very active manner. Responsibility for planning these conferences should be with the coordinating unit of Mississippi State University, and the staff personnel for planning in the State department of education in both general education and vocational-technical education. There should be close and complete followup of the work done in the conferences.

Response

Severe limitations on travel funds for local teachers have hampered the operation of conferences for the purpose of articulating the junior college and high school instructional programs. However, much effort is being made at the local level through joint meetings of high school and junior college instructors to effect the necessary articulation.

Recommendation

On a formal and careful basis survey students enrolled in vocational-technical programs to determine how they feel about how well the vocational programs are meeting their needs.

Response

A formal study of the type described would require a considerable amount of money and a large staff. Much has been done, however, on an informal basis to determine how students feel about the vocational programs, and the reaction has certainly been positive.

Recommendation

Promote an allout effort to improve the status and function of local advisory committees so that they may be a viable force in program planning and implementation.

Response

The guidelines for local plans for vocational education require certification from the local school that an advisory committee is used in program planning and purchasing equipment. Local agencies are urged through conferences, supervisory visits, and all other available means to utilize craft committees and advisory committees. Further implementation of this recommendation therefore becomes a matter of educating local agencies as to the value of using advisory committees.

Recommendation

By grant, or otherwise financed, make a statewide formal study of attitudes of the general public, employers, parents, students, and others toward vocational education (in a word the image) as a means of gaining stronger support from the general public, the State legislature, and to improve present programs and determine the need for new programs.

Response

A study of the magnitude indicated in this recommendation would require a specific grant of some nature since it is obviously beyond the scope of the resources available to the vocational division at this time. The vocational division, however, has funded one research project which it is hoped will go a long way toward determining the attitudes toward vocational education of both the general public and the employers.

Recommendation

State vocational education staffs, school administrators, vocational-technical education directors should maintain continuing surveillance of programs, services and activities in all situations to prevent or minimize duplication of efforts, comepetition for students, facilities, equipment and money.

Response

The administrative structure for the operation of vocational-technical education programs in Mississippi is specifically designed to minimize duplication of efforts and competition for students, facilities, equipment and money. Further, the staff, the junior college commission, and the State advisory council maintain a continued surveillance to assure that the State receives the maximum amount of education for each dollar spent.

Recommendation

Meeting the needs of the disadvantaged and handicapped is a relatively new area of responsibility for vocational education; hence, greater effort should be made to reach larger numbers of persons in these two groups by planning, increasing the knowledge and expertise of personnel at all levels.

Response

The establishment of two centers for the training of the handicapped is a major step toward the implementation of recommendations mentioned earlier. In addition, workshops, formal courses, and various in-service training programs are being offered to instructors of the disadvantaged and handicapped.

We can say without reservation that due consideration has been given to each recommendation made. Concerted effort has been exerted to implement all recommendations.

As a follow-through the council is visiting the various programs throughout the State to ascertain first hand the programs, services and activities that are currently operating. The executive director of the council and staff are working directly with the vocational staff in assisting in every way posible to implement the recommendations and to promote and enhance all innovative ideas and approaches to the training of youth and adults alike in vocational education in the State of Mississippi.

In addition to the analysis of the preestablished goals and objectives in the State plan for fiscal year 1972, an indepth evaluation was done on 10 percent of the school districts offering secondary vocational education and three junior college districts offering postsecondary training in Missisippi. The purpose of this evaluation was to get each school district to conduct a self-evaluation and to establish goals and objectives that should be carried out to improve programs of instruction. It was also the purpose to draw a 10 percent sample of the school districts that would be evaluated by a visiting committee. The visiting committees were to make recommendations to the school district officials that, if carried out, would improve the instructional programs in vocational education offerings in the school districts to better meet the needs of students.

MISSOURI

The Consideration Given Last Year's Recommendations

The 1971 Recommendations and Reactions

Eight major recommendations were made in the preceeding year's evaluation report. The director of vocational education appointed a staff committee to prepare an analysis of each. The analysis was prepared and discussed in staff meetings. An overview of the action or reaction to each follows:

Recommendation I.—Restructure the priorities of our educational system:

1. That the State board of education establish a mechanism, with the objective of restructuring the educational system to accommodate the relevant and occupational needs of individuals and prepare them for the work force in keeping with the needs of such work force.

2. That it become the policy and philosophy of the State and local boards of education that options be left open to students through a flexible education system to encourage adjustments of individual education programs in keeping with the interests, aptitudes, abilities, and circumstances of the individual to the end that all be successful in achieving a worthwhile life goal. (Considering such items as allowing more electives, fewer required courses, and more credit for occupational training on the job.)

3. That the State board of education adopt as a priority concern the feasibility of occupational education exposure for every child in Missouri public schools. (Place a requirement for inclusion of career education in the elementary program and offer monetary incentive for each program begun.) In an effort to encourage this type of activity, initiate models through the exemplary program moneys allocated to the State for distribution.

Reaction.—The following represent a samping of the continuing activities of the State board of education in this area:

1. Efforts to improve the image of vocational education.
2. Extension of vocational education opportunities for all people.
3. Recent action of the State board of education to make more flexible the high school graduation requirements.
4. The development of a meaningful career education program.
5. Funding of exemplarly projects such as ones now operating in Moberly, Eldon, University City, and Doniphan.
6. Development of the MOTIS program for Missouri.

As the classification procedures, the reorganization concepts, and the school financing studies of the State board develop, each will greatly affect this recommendation. We will, during this year, continue in the vocational division to improve the image of vocational education and make more valid the product of our instructional procedures.

Recommendation II.—Creation of Planning Districts: That the State be divided into educational planning districts by some feasible method in order that more efficient and effective coordination can be developed in such items as general program approvals, forming area vocational schools, and other State priorities for all educational purposes. These districts should be provided and given information about the six major labor markets within the State.

Reaction.—Recommendation II deals with the suggested creation of planning districts. Three reports recommending similar approaches were cited but only one of these, the Swanson study, has been significantly implemented. We agree with the council on this recommendation. While we are doing much regional planning now, it is not down on paper. MOTIS will help prove labor market areas and needs. We will begin, however, to write up a program in this area. We would need to consider the area school, community college, and comprehensive high school in our plan.

Recommendation III.—Improving the Data Base for Planning:

1. That plans be immediately set into motion to assure that funds will be available to carry on the collection and analysis of manpower data presently being studied and planned in the manpower needs study (MOTIS—Missouri Occupational and Technical Information Survey) presently being funded by the Ozark Regional Commission. This is a mandatory requirement if the data to be used in planning is to become more reliable and usable.

2. As a necessary collary to the prior recommendation, it is further recommended that the State initiate a coordinated system of data collection for both State and local planning. The educational data processing procedures, equipment, and personnel that are needed to implement this system should be given a priority rating of high importance. All forms for vocational programs, both financial and statistical, should be converted to electronic data processing forms so that the information could be almost "instantly" available to evaluators, planners, and administrative directors of vocational programs and students.

3. That information on the "product" of any vocational program in the State be available to the evaluation team without having to ask for additional information from the school and program under surveilance. This could expedite the time required to make these evaluations and certainly decrease the cost involved and still offer recommendations of the same caliber importance presently tendered.

4. That the data collected by the State department of education on form FD/5, section 1, dropout data be significantly improved in the requirement, collection procedure, and followup of reported data.

Reaction.—Recommendation III deals with the data base for planning. The department staff is committed to the installation of MOTIS as the council recommends. We seek always to improve data collection and the reporting system. It is impossible to obtain all the data some researchers want and still maintain good relations with local agencies who must furnish us this information. We think our reporting system is improved. In consideration of the council's request, we will continue to strengthen it. MOTIS will make the difference for vocational education in Missouri.

Recommendation IV.—Require Planning Instrument of Local Districts:

1. That local plans for vocational education be made mandatory as required in section 123(a)(6)(F) of Public Law 90–576. These plans should supply the data required to complete the data requirements of the Missouri State plan for vocational education. This should be more than an application for funds. The plan should be set up to state performance objectives of the programs which could be evaluated by a committee of S.D.E. personnel as to the adequatness of program, supplies, equipment, and qualified personnel to carry out the program. The additional requirement of projecting for a period of 5 years should be made a requirement of the plan.

2. That workshops be instituted by the department of education to train local personnel in the gathering of data, writing objectives, and planning for adequate evaluation of programs to insure a degree of standardization compatible with a general regulation instituted for compliance.

3. That the S.D.E. require an annual agreement that the plan was checked and is agreed to by a majority vote of the local advisory committee and is signed by the chairman of this committee. Missouri Revised Statutes 178.560 require that local advisory committees be set up. This should be considered a minimal use of these groups.

Reaction.—Recommendation IV discusses local planning instruments. Here again, there is only so much we can require from the local units. We currently have a local district plan, and we will review it. Frankly, we have not made proper use of the existing one because we do not have the time. Other demands have been given priority. We concur that workshops should be set up to help in planning. This has been a practice of the vocational division. In item 3 of this section, the council recommends sign-off procedures by the local advisory council. This I do not favor. I believe strongly in the use of local advisory councils, but I think our agreements should be with the administrative board of each local unit.

Recommendation V.—Create a Planning Instrument at the State Level:

1. That the vocational division set into motion the machinery necessary to devise a plan which will encompass all the data available from the previous year to set out in explicit terms and separate parts the following items: To wit, the priorities as given by U.S.O.E.; the priorities as seen by the Missouri department of education, vocational division; the objectives, stated in performance criteria, as denoted by the directors of the sections in the vocational division. This plan need not wait on any directive from U.S.O.E., but could begin to be formed immediately.

2. An evaluation instrument, simplistic in design, be initiated annually, and included as a portion of the annual plan, to ask each director to answer explicitly "yes" or "no" if he met the goals and objectives set up. This can then be followed with an explanation of how the objectives were met or why they were not met in his subjective opinion. Also, this could be a real prelude to the compliance document presently required by the U.S.O.E.

Reaction.—Recommendation V discusses the creation of a planning instrument at the State level. We are planning now. We have been meeting the challenges presented by the council pretty well except in the case of the State objectives. The work we have done with John Allan will strengthen us in this area. I think we will develop an objective instrument to be used by the program director, as they suggest, for evaluation of each section.

Recommendation VI.—Guidance be Given High Priority:

1. That the requirements for a AAA school in the State include the requirement of a qualified counselor for not more than 250 pupils in secondary schools. AA and A requirements should be commensurate.

2. That the S.D.E. require one counselor for not more than 750 elementary students or an administrative unit. This requirement should be required for AAA rating.

3. That State funds from the V.E.A. of 1963, amended in 1968, be increased to fund programs of guidance, which will be explicitly outlined by the guidance section of the S.D.E.

4. That inservice workshops and programs be developed by the S.D.E. and reguired of all counselors presently certified. These workshops should include facts, figures, statistics, and requirements necessary to meet the needs of the many youths in the State as seen by the Department of Labor and felt by the individual after he has had the opportunity to express his personal interests, abilities, and aptitudes. If this requires additional funding then this should be studied for inclusion as a high priority in funding.

5. That special attention be given to the identification and placement in vocational training programs by guidance personnel of the handicapped and disadvantaged personnel, particularly at the secondary level, if this is compatible with individual needs. Minority groups must receive special attention.

Reaction.—Recommendation VI, speaks to guidance being given a high priority. This will be considered by proper groups as you plan for classification changes on which you are working. The report asks for reduction in per pupil-teacher ration for guidance. This I am sure will be considered. Maybe we need to take a new look at guidance. Maybe the guidance people need to take a new look at themselves and their function. Originally I took a strong position that guidance was all inclusive. I am beginning to feel that was a mistake. It appears that too many guidance personnel at the local level frankly are not interested in vocational guidance. The only reimbursement that comes to a local school for guidance comes from vocational funds. I believe that we are often not getting results in vocational education from counselors. The council suggests reduction in ratio. If this is done and we continue the present practice of reimbursement, I believe we would find it necessary to reduce our per unit reimbursement.

Recommendation VII. — Mandatory licensure of proprietary schools:

1. The Missouri State of Education be responsible for administration of the act with the advice and counsel of an advisory council.

2. An adequate system of reporting of enrollments, completions and replacements by occupational categories be incorporated.

3. Minimal standard should be established to assure a guality product and should include factors such as a teacher qualifications, curricula, and facilities.

4. Regulations in methods of operation should be incorporated to govern such items as a pro rata refund policy; promissory employment practices should be valid; schools and their salesmen should be bonded; and recruitment policies including solicitation and advertising should be carefully assayed.

5. Proprietary school resources be considered in the total resources available to school administrators for developing comprehensive

occupational programs in discharging their responsibilities for occupational preparation of youth and adults.

Reaction.—Recommendation VII, deals with the mandatory licensure of proprietary schools. We support the council's recommendations in this field. As you recall, for several years we have been working much more closely with this group. We have explored with them the idea of a licensure bill and most of them have agreed to cooperate in presenting some kind of legislation to the current session of the General Assembly. The council and its executive secretary have been very understanding and helpful in working with the proprietary schools. Gordon Kutscher serves as chairman of a committee attempting to formulate the legislation to be introduced. All of us are hopeful that some good things can result from this association.

Recommendation VIII.—Staffing for restructured priorities:

1. That the additional personnel called for in the Missouri State plan for vocational education be authorized.
2. That a priority order be placed on each position requested and a master plan developed showing the time required to fulfill this recommendation.

Reaction.—Recommendation VIII deals with staffing for restructured priorities. Here again we are in support of their recommendations. They call for a priority for each position requested and a plan developed to fulfill this recommendation. We actually have fewer personnel in vocational education than we had a year ago, and the demands are increasing. We do seek always to eliminate some professional assignments that in the past have seemed mandatory. I do fear sometimes that we are not able to do as good a job for as many people as I would like to see us do. When a group like the advisory council calls for these new activities, it places an additional burden on our staff.

Factors Influencing the Success or Failure of Implementation of the Recommendations

Several factors have helped in implementing the recommendations from last year. These included the wide dissemination of the 1971 report, the good relationship that exists between the State board and the advisory council, the explanation and discussion of the report at public hearings conducted by the council, consideration given by the assistant commissionner for vocational education and the coordinator for career education to the suggestions, the involvement with many agencies in cooperating and working with them to effect constructive changes, and the dedication of the council members to involve themselves.

Follow-Through Activities of the Council

After the initial presentation of the recommendations to the State board of education in a personal oral report by the chairman, vice chairman, and executive director, several followup letters of information and inquiry were directed to the chairman of the board as well as to the commissioner and assistant commissioner of education. These all received attention.

Council members worked to help improve the image of vocational education by involving themselves in speaking engagements, helping to sponsor a career fair, working on the evaluation of an information dissemination campaign, participating actively in the writing of legislation proposed in the recommendations, meeting with local school personnel to explain and promote activities and serving on committees to study new instrumentation suggested.

MONTANA

The advisory council has made several recommendations, both general and specific, directed to different audiences but always with the goal of improving vocational education in Montana. Primarily the recommendations were directed to the State board of education but also, at least indirectly, to the office of superintendent of public instruction, Department of Labor, State and Federal legislative bodies, National Advisory Council on Vocational Education, U.S. Office of Education, local educational agencies, and the general public.

More than 500 copies of the second annual report were distributed to the Governor, State board of education, legislature, office of superintendent of public instruction, local school districts, news media, general public and many other audiences outside the State.

The advisory council is encouraged that all the 13 recommendations made in the second annual report have been given some consideration. Ten of them were given emphasis and were partially implemented this year.

We commend the cooperative action taken by the State board of education and superintendent of public instruction, Dolores Colburg and her staff. The following are recommendations of our 1971 report, and the action taken upon them so far as the council is aware.

Recommendation

Greater emphasis be placed upon securing more valid data on dropouts. The office of the superintendent of public instruction should give first priority to making the entry-exit followup system fully operational. Job market information must be collected on a national, regional, State, and local basis. The cooperation of all agencies with such information is needed.

Action

The entry-exit followup system is now operational and is supplying enrollment data. A questionnaire survey of high school dropouts is of doubtful value, but is curently being upgraded. Better job market information for Montana is now available from the employment security division, and the division of planning and economic development has acquired a system that will provide employment data by counties within the State. Data on the regional job market are still not available and are badly needed.

Recommendation

The State board of education seriously review the present priorities for expenditures of State education dollars and place additional emphasis on State supported vocational education. The Federal Government be encouraged to increase its support of vocational education to an amount equal to that provided by the State. Also, school districts especially those in eastern Montana be encouraged to use the optional mill levy for adult education. Use of this levy can help to bring vocational education to those unable to reach postsecondary training institutions.

Action

The State board of education has recently submitted a budget request calling for a significant increase in State funds for vocational education. The Congress of the United States has tried to increase Federal financial support for vocational education, but during the past year has been twice overruled by presidential vetoes. School districts continue to make little use of the optional one-mill levy for adult education.

Recommendation

The State board make every effort to solve the problem of construction of the proposed Great Falls building. Also, the State board should take action to resolve the problem of imbalance and utilization of the postsecondary facilities by one or two levels of vocational education programs.

Action

Proposed legislation has been prepared through the office of the superintendent of public instruction to eliminate construction effort difficulties, and specifically the problem tying up Great Falls construction funds. In its budget request to the 1973 legislature the State board of education has provided for additional construction funds for the vocational education centers. One local school district has passed a bond issue to provide adequate vocational education facilities for secondary vocational students.

Recommendation

The council recommends that the State place a greater emphasis upon meeting the needs of the disadvantaged and handicapped.

Action

The staff of the superintendent of public instruction responsible for the disadvantaged and handicapped in vocational education has developed a handbook to help local schools implement programs for these citizens. Several agencies are cooperatively planning for better utilization of the limited funds available to provide disadvantaged and handicapped with vocational education opportunities; but significant increases in funding are needed to meet the needs of the people.

Recommendation

The State board of education utilize the information from local advisory committees and the office of the superintendent of public instruction and cooperate with the Montana Manpower Planning and Development Advisory Council in coordinating program planning and development of vocational education programs throughout the State. Also, make known to other manpower planning groups the availability of training through existing State vocational education programs.

Action

Vocational education has been represented actively on the Governor's Manpower Planning and Development Advisory Council and has participated in coordinated program planning and development. Coordination and planning among State agencies continues to be a need in manpower planning and training programs in Montana.

Recommendation

State board of education take the leadership in increasing and improving communication with private vocational schools.

Action

This past year, communication has been improved by the appointment of a committee composed of private and public school personnel to work cooperatively on developing recommendations for the State board's consideration, on licensing of private schools in the State of Montana.

Recommendation

Public schools make job placement of the students as important a responsibility of theirs as the actual training and education of the student.

Action

The postsecondary vocational education schools have put additional emphasis on job placement in the past year, and there are now some indications that the secondary schools are assuming more responsibility for placement as well. There is continued need for cooperative efforts in job placement between the schools and the employment security division.

Recommendation

The board of directors of the Mountain-Plains Education and Economic Development Program, Inc. located at the former Glasgow Air Force Base establish an advisory committee to the center. And further suggests that Montana Advisory Council for Vocational Education be represented on that committee.

Action

The Mountain-Plains Education and Economic Development Program, Inc. to date has not established an advisory committee, and it appears a committee will not be formed.

Recommendation

It is recommended that additional publicity, accurate and timely be given to the vocational education program.

Action

This recommendation has received considerable emphasis from the office of superintendent of public instruction. A cooperatively developed project by the superintendent of public instruction, the State advisory council for vocational education, and the national advisory council for vocational education has been prepared. Television and radio spot advertisement of vocational education opportunities for Montana youth will be available early in fiscal year 1973.

Recommendation

Elementary schools make a strong and organized effort to provide students with an awareness of vocations which may be available to them and how the education system is able to assist them in preparing for the world of work.

Action

Through the leadership of the office of the superintendent of public instruction, career education from kindergarten through adult has been promoted. One staff member of the office of superintendent of public instruction has been assigned to provide leadership from that office in the development of career education. Meetings and conferences have been held and are being planned for further development of career education. A needs assessment will be conducted during fiscal year 1973 to better determine the career education needs in Montana. A few schools have taken upon themselves the obligation of career education and are providing orientation and awareness opportunities for their elementary students. This activity is certainly consistent with the intent of the Advisory Council in the area of occupational awareness. We commend the State superintendent, the State board, and the local education agencies for this movement and urge continued development of career education.

Recommendation

The State board of education establish standard program and course titles and description. These titles should be used to refer to any program offerings.

Action

The staff of the superintendent of public instruction is presently working on this problem. Several meetings have been held with those involved in offering programs attempting to develop a standard procedure for identifying programs and courses. This will need continued attention.

Recommendation

The State board take appropriate action to discourage postsecondary schools from advertising courses which they do not actually offer.

Action

This problem appears to be receiving adequate attention from the office of the superintendent of public instruction. With the cooperation of those involved in conducting programs this problem should be eliminated.

Recommendation

The State board of education review and give further consideration to the recommendations contained in the First Annual Report of the Montana Advisory Council for Vocational Education submitted in September 1970.

Action

Several of the original recommendations of the 1970 plan have been given additional consideration this past year. Additional inservice training of teachers and guidelines for vocational education for the disadvantaged and the handicapped have been developed. A new plan for vocational education for 1973 is now available for local planning and should be of considerable value. Both the State board and the office of superintendent of public instruction have expressed an interest in review and development of position statements, and policy regarding vocational education. A most significant development on the part of the State board is the creation of a committee for vocational education.

The entry-exit followup study has been put into partial operation and is beginning to provide data necessary for local and State planning.

The successful implementation of several Council recommendations has been achieved through the cooperative efforts of the Governor's office, State legislature, State board of education, office of the superintendent of public instruction and the employment service. The Council is encouraged by this activity.

Followthrough will be made by the Council on the recommendations that are considered in need of expansion and redirection.

NEBRASKA

The 1971 evaluation Report was reproduced in a quantity of 3,000 copies and disseminated to all agencies, groups, and individuals who were in a position to carry out the recommendations. By January 15, 1972, the supply was exhausted; another 1,000 copies were ordered.

There were 45 recommendations in the 1971 Evaluation Report. In the interest of summary, the following categorical groupings include the major area to which the recommendations were addressed, factors which influenced progress (or lack of progress), and new or continuing recommendations.

1. Council Recommenadtions and Resulting Action

a. *Guidance and counseling—State priority No. 1.*—There were 550 copies of the report presented to the guidance counselors at the time of their Nebraska Personnel Guidance Association Conference in Lincoln, Neb., on October 12, 1971. Receiving specific emphasis was the need for orientation to the occupations and the world of work with consideration equal to that given to academic pursuits. The responsibilities of guidance in implementing career education, including the use of educational media, were spelled out in detail.

The resultant impact has been that guidance counselors are stressing orientation to the occupations with greater emphasis. Over 200 counselors have visited their area technical colleges to gain information about educational opportunities available. The increase in vocational enrollment in secondary schools may be credited in part to counselors' efforts. The increase in postsecondary vocational technical enrollments during the past year has been significant. A good start has been made, but continued emphasis is needed to generate a greater statewide movement.

A subcommittee of the Council met personnally with counselor education agencies of four major institutions within the State to strengthen preservice and inservice preparation in the occupations and to bring about uniformity of understanding about the role of the counselor.

Major inroads have been made in integrating vocational education and career education into the annual conference program of the Nebraska Personnel Guidance Associations. Already incorporated into their agenda are featured presentations by the Council plus small group discussion sections on the 1972 Evaluation Report.

The problem of leadership in guidance and counseling from the State department of education was another concern with which the Council was involved. This problem was studied and recommendations were presented in the form of a written report to the State board at its November 1971, meeting. Because of an identified need, the legislature passed a bill to establish and fund a student personnel services section within the department of education.

However, because the legislation was passed late in the year, difficulties were encountered in securing a staff with needed professional qualifications within the imposed salary limitations. A delay in filling the authorized positions caused a major portion of the funds to be withdrawn by the next session of the legislature. The Council has continued close monitoring of this problem and will stress reduction of the restrictive limitations and appropriation of adequate funds to implement this important educational service.

Inservice workshops for counselors were conducted by the division of vocational education in cooperation with the student personnel services section as a result of Council recommendations and priorities in the 1971 Evaluation Report. Seven workshops were conducted between the dates of February 25 and April 20, 1972, with 404 counselors, curriculum directors, and local principals attending.

As a result of specific concern focused upon guidance and counseling by the Council, the postsecondary schools in the State have made a concerted effort to contact secondary school counselors in their areas to inform them of educational opportunities available with placement and employment data for each occupational area.

The exemplary projects—which are national level incentives for innovative activities—at Platte College and Central Nebraska Technical College were continued this year and are enhancing occupational orientation in their areas.

b. *Preparation of Occupational Teachers—State Priority No. 2.*—The second major area of concern in the expansion of vocational education in the State was designated by the Council to be the availability of well-prepared occupational teachers. A number of accomplishments have contributed significantly to alleviating this problem. A letter to the Council Chairman, Mrs. Vieregg, resulting from a visit by the Council to Kearney State College, identifies the progress.

As a result of recommendations "b" through "f" under State priority No. 2 on occupational teacher preparation of the 1971 evaluation report and ensuing followup meetings, there has been established a coordinator for occupational education within the Teachers College of the University of Nebraska at Lincoln. A person was selected as coordinator and office space allocated. The office opened July 1, 1972.

A full time staff member has been added to the Division of Vocational Education and designated as Director of EPDA (Education Professions Development Act). Responsibilities will be to coordinate the teacher education agencies through leadership from the State level, including inservice workshops and fulfillment of recommendations from the Council's evaluation.

A research project is being conducted at Kearney State College to help determine the course content in producing quality trade and industrial teachers. The University of Nebraska at Omaha has been approved for trade and industrial education.

The State staff in cooperative education, in conjunction with the University of Nebraska cooperative staff at Lincoln, conducted eight inservice workshops over the State to assist those instructors involved in this method of teaching.

All of the State colleges and the University of Nebraska at Lincoln are accepting from 40–60 hours of transfer credit from the technical community colleges. This should help provide more capable vocational instructors in the future.

After the second year of emphasis, there has been insufficient prograss relative to recommendation "g" under priority No. 2 of the 1971 evaluation report, concerning a teacher education agency for health occupations. There is, however, uniform agreement on the need and advisability of the recommendation. Two institutions are actively considering it, and a breakthrough appears probable within the coming year.

c. *Improvement of Image of Vocational Education—State Priority No. 3.*—The third major area of concern designated by the Council in the 1971 evaluation report was the need to change public attitude toward vocational education or to improve the image of vocational education.

The Nebraska Council has developed six 60-second television tapes to assist in accomplishing this goal. These tapes have been aired by the State's TV stations on a rotating basis as a part of the stations' public service commitment. The Council prepared a brochure, "The Preparation Gap," designed to improve the image of vocational education.

The influence and leadership of the National Council, national educational leaders, the press, and other news media, both State and national, have also been effective in improving the image of vocational education.

The resulting increase in enrollments in secondary and postsecondary vocational education would indicate a marked change in the public's attitude toward vocational education. Acceptance on the part of parents has played a vital role in this change. In the opinion of this Council, improvement of the vocational education no longer needs to be carried as a priority concern, but the topic is still carried as item 14 under goal II.

d. *Appropriations and Financing for Vocational Education.*—As vocational education expanded to meet the needs within the State, funding resources become much more critical. Federal sources provided an important influence and developed in the amounts anticipated. The amount of local funds also increased. Although a subcommittee of the Council met with State authorities to request an increase in State funds, appropriations from State general funds have not kept pace with program needs and continue to be a major limiting factor in the growth and development of vocational education. Unless significant increases in appropriations are brought about in the next legislative session, local communities will still be forced to carry the major burden in the financing of vocational education.

e. *Career Education.*—The Council was the first agency in the State to take an official stand on career education. Goal I, item 1, "a" through "e," on a new emphasis for education, made specific recommendations which have been only partially implemented. A State task force and chairman for career education have been established within the Department of Education. Several meetings have been held with more planned for the future.

The general statewide interest in career education is good. Schools are expressing an interest. The exemplary projects have produced some well-documented models that can be recommended, and useful materials have been developed. Career education has been partially accepted by the academic educators, and some of the teacher preparation institutions are now advocating the concept.

f. *Staffing for the Division of Vocational Education.*—The recommendation for new personnel and leadership was needed to expand further the opportunity of vocational education statewide. The recommendation for increased staff for the Division of Vocational Education by the Council was helpful in combating an effort by the Governor and the Division of Administrative Services to reduce personnel across the board. Without this recommendation there may have been personnel cuts which would have been very detrimental to the continued growth of vocational education in the State. New personnel were added in health occupations, adult basic, and vocational education personnel development. Other Council recommendations for increased staffing were sacrificed in compliance with a State economy movement and in keeping with a personnel services limitation which looms as a greater concern than previously anticipated.

Federal funds were available which could not be utilized for increasing vocational education staff because of personnel services limitations imposed by the Legislature. If such a regulation is to continue, this legislation could impose serious restrictions upon developing the State's personnel resources.

g. *Data and Informational Systems.*—The need for current, valid data is always a necessity in the function of evaluation. The fifth annual update on occupational opportunities in Nebraska was accomplished during the year by the Nebraska Research Coordinating Unit. The data were derived from a sampling of a master population of 70,000 State firms that employ people.

An initial breakthrough has been achieved on the followup of students to determine the effectiveness of the instructional programs. The accomplishment was achieved through funded projects under part C vocational funds and involved primarily postsecondary students. The questionnaire developed is reliable and has provided data which are valuable in curricula revision and updating program offering to meet the needs of students and employers.

In the past it has not been possible to provide the incentive to local schools to accomplish a student followup. The State board has recently approved a mini-grants project, to be administered under part C research funds, which could contribute significantly to the development of valid data.

Also valuable in a supportive role for data and informational systems has been the vocational education technical resource library maintained by the research coordinating unit through part C funds. The library serves the vocational division, vocational teacher education agencies, local and area schools, and the council.

h. *Serving the Disadvantaged and Handicapped.*—Growth and expansion of vocational services to disadvantaged students have been emphasized by those responsible for this development. Especially significant was the activity by the Kearney Center for vocational education in response to council recommendation "f" under State priority 2 on occupational teacher preparation.

Enrollment in the summer teacher education seminar for working with the disadvantaged and handicapped totaled 76 teachers. There were 295 teachers for the disadvantaged and handicapped in 77 communities during the past year, an increase of 59 teachers and 19 new communities. Student enrollment in the disadvantaged and handicapped programs increased from 4,111 to 5,801, an increase of 1,690 students.

1. Vocational Program Planning

The major revisions made as a result of a new format for the State plan for vocational education have brought about a welcome change. The size of the document has been reduced by about 30 percent, and the consolidation of sections II and III has made that plan more functional. It is easier to evaluate accomplishments as the objectives have been stated in more measurable terms.

A concern still exists as to whether some of the local vocational plans submitted by schools are viable planning documents.

2. Factors Influencing the Successful Implementation of the Recommendations

a. Production and dissemination of the report document, with accompanying news coverage, was timely.

b. The wholesome, cooperative relationship which the council has enjoyed with the State board for vocational education has been conducive to implementation.

c. The willing acceptance and conscientious dedication to council recommendations on the part of the assistant commissioner for vocational education and the staff of the division of vocational education were important factors in many of the accomplishments which were achieved.

d. Implementation activities, conducted by subcommittees of the council with the agencies to which recommendations were addressed, have helped focus importance on council recommendations and develop approaches which would bring about corrective solutions.

e. The involvement and dedication of council members, the committee organization structure, and the leadership of the council have been most productive. The recommendations were not listed in the report and forgotten. There was a continuous followup throughout the year which added considerable impact to the evaluation report.

f. An important function during the year for the Nebraska council was hosting of the first Central States Conference of Advisory Councils in Lincoln, Nebr. Representatives from 12 councils were in attendance, and most Nebraska council members received the benefit of firsthand interaction with neighboring States. Member enthusiasm and participation have been at a higher level since the conference.

g. The Nebraska council was represented at most of the State, regional, and national conferences and workshops. Two evaluation workshops were also attended by Council representatives.

h. An important factor in data gathering was the response received from requests by the council for obtaining needed data. Special appreciation is extended to the division of vocational education, the State department of education, the Nebraska research coordinating unit, the various secondary and postsecondary institutions, and firms sampled.

i. The response from educational agencies to council recommendations has contributed to implementation of recommendations.

j. The council has followed the practice of meeting at educational institutions within the State to become more familiar with facilities and personnel responsible.

k. During the past year vocational education was again represented in the Nebraska legislature by an official lobbyist, established by the council.

l. The location of the council office within the university community has been conducive to obtaining data necessary for the evaluative function. The council established a list of evaluation priorities which were then made known to students needing research topics. The council office worked closely with interested students in the design of the studies and development of the data gathering instruments. The result has been a mutual relationship which has been beneficial for all concerned. All studies involving a contractual arrangement by the council have been closely monitored by the council office in all phases of the study.

m. Pages 164 through 168 of *The 1973 State Plan for the Administration of Vocational Education* were devoted to accomplishment of recommendations and priorities from the 1971 evaluation report.

n. The council's stand on career education in the 1971 evaluation report was especially aggressive, considering the newness of the issues and the departure from traditional practices. The council continues its strong endorsement in support of career education with encouragement for implementation at the earliest possible opportunity.

3. Follow-Through Activities Conducted by the Council

a. As a result of the accomplishments in the State on improving image of vocational education, it was decided that the committee on improving image of vocational education would be merged with goal II.

b. An evaluation priority list was established by the Council, based upon data voids which evolved in carrying out the function of evaluation. The council established priorities in needed areas not addressed by previous evaluation studies.

c. Council recommendations made in previous evaluation reports were weighed to determine whether there was a need for continuance. Determining factors were (1) the extent to which the recommendation was accomplished and (2) the current need for the recommendation in light of present priorities.

d. As the evaluative function is being completed for the third year, new concerns are emerging after some of the initial recommendations are accomplished. Numbers enrolled in vocational programs and the growth in the various categories have been well documented. The need for citeria which will measure and upgrade educational quality is now more prominently coming into the picture. To date, educational quality has been assessed by the Council through followup of former students and interviews with employers. Both approaches are after the fact. There is need to determine quality of ongoing vocational programs with faster corrective action.

e. Coordination was maintained with the State board for vocational education, State board for technical community colleges, the Nebraska Association of Technical Colleges, the Nebraska Council on Occupational Teacher Education, the Nebraska Vocational Association, and the State school boards association.

f. In an effort to improve communication between the council and the agencies to whom its recommendations were addressed, meetings were scheduled with the division of vocational education of the State department of education, the dean of the teachers college at the University of Nebraska at Lincoln, guidance and counselor education agencies at four major educational institutions, and the appropriations committee of the Nebraska Legislature. In addition, the council appeared on the program of the State occupational teacher annual conference. These followthrough activities served to define the Council's recommendations and to encourage their implementation.

g. A comprehensive study was completed by the council on the status of local vocational advisory committee activity within the state. The study was enlightening as it provided documentary data upon which recommendations could be based in taking steps to strengthen the situation.

NEVADA

Recommendation 1

The State department of education should set up a more sophisticated system to utilize the products of other agencies, particularly in reference to manpower and demographic studies. This system would make it easier to incorporate this kind of information within the State plan. In turn, local educational agencies would be enabled to develop their vocational education plans on the basis of this information.

Status

A review of the format and content of the Nevada State Plan for Career Education for Fiscal Year 1972 indicates that manpower information, as supplied by the employment security department, State of Nevada, has been secured and included in the plan. However, there is little evidence to suggest that, on a statewide basis, local educational agencies have utilized such information in program planning. Broadly classified service areas including (1) distribution, (2) home economics, (3) office occupations and (4) trade and industry reflect signficantly higher labor market needs than related vocational education program labor outputs will provide through 1976.

[NOTE.—Other sector output statistics in terms of manpower and training were not reflected in manpower information supplied by Employment Security.]

Recommendation 2

The State department of education should develop vocational education output figures in reference to labor market statistics rather than on a class-by-class basis. The Department should supply those figures to all Nevada agencies concerned with human resource development.

Status

The problem of incompatibility between United States Office of Education Codes and Dictionary of Occupational Titles Codes remains unsolved. Local educational agency utilization of one or the other coding systems fails to yield true statistical data for use in reports or related planning documents. One local educational agency, Washoe County School District, however, has embarked upon a "job market analysis" project which may provide representative information encompassing employment opportunities and preparation required for entry level positions therein.

NOTE.—The Washoe County School District "job market analysis" project received funding approval from the State Department of Education in May 1972.)

Recommendation 3

The State Department of Education should revise the format and requirements for local plans so that the information reporting and management system (VERIFY) could simplify local plan preparation. The base data for local plans would only need to be altered through addition or deletion of projected programs based on manpower or demographic information, thus allowing local narrative to address such issues as student placement, evaluation, or local advisory committees.

Status

The State Department of Education has utilized an emerging "information reporting and management system" extensively in both Clark and Washoe County School Districts. A computer based "preliminary program description" document has been developed as an output of the information reporting and management system.

NOTE.—Increased utilization of available data on part of local educational agencies toward achieving accountable program planning is suggested by the Advisory Council.

Recommendation 4

The State department of education should increase its dissemination of information about highly successful programs. Such information should be sufficiently complete that any local agency could implement a similar program if it felt it appropriate. In addition, the State department should pursue a course of support to districts to assist them in such implementation.

Status

It appears that a highly effective overall effort is being made by key administrators within the State department of education responsible for vocational education activities and programs to increase the visibility of successful programs, as well as to disseminate functional information pertinent to the department. Such efforts are evident by (1) the increased number of field service trips made by Department staff, (2) the high funding priority given to career education awareness projects mounted under education professions development act provisions, and (3) by encouraging and endorsing local education agency efforts to promote their programs through descriptive pamphlets, news media releases and seminars.

Recommendation 5

The State department of education should work toward a smoothly coordinated program of vocational education in two ways: (1) in a sequential flow from elementary through adult, and (2) in reference to all related educational programs. This coordination should not only involve educational institutions, but should also be concerned with all other appropriate agencies. This is the first step in providing comprehensive career education services for all the people of the State.

Status

It is apparent that the State department of education is now working toward achieving a staewide coordinated program of comprehensive career education services. Significant steps include (1) a concerted effort to encourage local educational agencies to develop local annual and long-range plans based upon local and State labor market statistics and projections, (2) the development and dissemination of a "Policy and Position Statement for Career Education" aimed at statewide development of career education, and (3) requiring that exemplary and/or pilot projects receiving funding status include insurance that project results are broadly disseminated, and that developed project materials are available for statewide distribution to local educational agencies.

Recommendation 6

The State department of education should increase its leadership activities to insists local educational agencies in developing organizational efforts in areas such as the following: planning, evaluation, task analysis, cost analysis, and interagency cooperation.

Status

The State department of education has embarked upon an assistance program designed to enable local educational agencies to more effectively plan and evaluate their educational programs. Key components in the assistance program include (1) a task force on local plan development, consisting of members of the department working as a team and scheduling presentations of local educational agencies requesting assistance, and (2) development of a local vocational education management review system, designed to provide effective local educational agency management assessment.

NOTE.—Task analysis and cost analysis development has not been addressed by the Department based upon staff assignment limitations.

Recommendation 7

In developing and promoting systems for plans, programs, evaluations, program reports, and other such activities, the State department of education should solicit and secure input from all concerned with preparing people for careers.

Status

The State department of education has made an effective effort to solicit and secure input from a number of sources and through various methods in relation to planning, evaluating, and promoting educational programs. Specific endeavors include: (1) Increased communications with the advisory council for manpower training and career education, (2) participation in public hearings, at which hearings, public input is solicited, and (3) appointment of a career education leadership committee, and subsequently appointment of a career education task force to serve as an interface in career education development on a statewide basis.

Recommendation 8

The State department of education should review its State plan to insure that it addresses student and population needs, goals, and objectives drawn from those needs, and procedures which assure that those goals and objectives will be attained.

Status

The State department of education has made a concerted effort to improve the design and content of the State plan to better address needs, goals and objectives as they relate to effective education for the people of the State. Through an ongoing program of State plan format and content revision, as well as increased utilization of raw and treated base data pertinent to population and employment statistics, the department is thought to be now satisfying this recommendation in an ongoing endeavor.

Recommendation 9

In view of the size and scope of its vocational education, the State department of education should devote more of its resources to statewide and interagency manpower planning efforts.

Status

In an attempt to devote more of the vocational resources to statewide and interagency manpower planning, the director has proposed that a new position of Supervisor of Research and Planning be established within the branch. The proposed position is currently being reviewed by the State personnel division.

Recommendation 10

In cooperation with local directors, guidance personnel, teachers, and all others concerned with educating people for careers and/or placing them on jobs, the State department of education and local educational agencies should expand and strengthen the program of communications with local employment security offices and employers to expand job placement opportunities for vocational education students. The State department of education should allocate funds to local educational agencies to insure successful placement programs.

Status

To date, cooperation among local directors, guidance personnel, and teachers toward strengthening communications and expanding job placement opportunities has not been significantly increased on a statewide basis. Efforts on the part of the State department of education to expand such cooperation has been hampered by lack of funds. However, it should be strongly emphasized that both Clark and Washoe County School Districts have, through cooperation with the State department of education, embarked upon projects or programs which include the objectives of greater communication and cooperation between education and employment sectors. Such projects or programs include, in Washoe County (1) the job market analysis project, (2) the sequential approach to vocational education career education project and (3) the cooperative vocational education program. In Clark County such projects or programs include (1) the work experience education program and (2) the vocational guidance program.

Recommendation 11

Though the Nevada congressional representatives and the U.S. Office of Education, the State department of Education should accelerate its efforts to secure increases of Federal funding, both for general funding of vocational education programs and for categorical funding of special programs.

Status

The key administrators responsible for vocational education activities and programs within the State department of education have endeavored to increase Federal funding levels for vocational and special categorical programs. This effort is apparent by the numerous project proposals developed and submitted for review, as well as the records of frequent administrator appointments with Federal program representatives in the region. Although there is no comparative measurement tool, the Advisory Council feels that continuation of such displayed efforts on the part of the department of education administrators will enhance the State's ability to receive a fair share of Federal funds for career and vocational education.

Recommendation 12

The State department of education should make every effort to meet the Federal matching requirements entirely through State appropriations.

Status

The State Department of Education has not succeeded in bringing about a funding commitment to secure full Federal fund matching dollars through State appropriations. It is apparent that such an endeavor is not likely to succeed in the near future in light of legislative funding priorities and philosophy.

NEW JERSEY

Recommendation I

The division of vocational education should continue to place high priority on the development, implementation and coordination of the program planning budgeting system at the State and local level.

Status

The division of vocational education has continued with its efforts to develop and implement a program planning budgeting system at both the State and local levels. Funds have been appropriated for the third and final year of testing the system at the local level. Documentation on the local level system is now completed. Subsystems for the State level system are in an operational testing phase. State system implementation should occur in the near future.

Recommendation II

The State board of education should adopt as a policy goal for education in New Jersey the philosophy of eliminating the division of students into the categories of college bound, general education and vocation education and come to the recognition "* * * that all education is job oriented (or career oriented) and that proper educational programs differ only in terms of the individual's (career) goals and abilities, interests, and the variety of training needed to achieve these goals." In view of the massive commitment of funds envisioned to provide occupational or career education opportunities for all students, the only realistic means for achieving New Jersey's critical education needs is through channeling all available educational resources toward this goal. This effort will allow the current educational structure to maintain its traditional program offerings and objectives and, at the same time, will make it possible for the existing system to adopt occupational or career objectives for all students regardless of their specific individual objectives or level of aspiration. Due consideration in this education thrust should be given the private nonprofit and profit schools whose populations are generally overlooked as contributing partners in achieving public education goals, especially career or occupational education goals.

Status

The State board of education has not to date adopted the policy goal stated in recommendation II. The Board's reluctance appears to stem at least in major part from an understandable desire to delay decision making on the issue until the emerging philosophy of career education is more clearly defined in terms of process, purpose and objectives. In reference to the recommendation that due consideration be given to the private profit and nonprofit schools in achieving public education goals the advisory council has itself for its evaluation this year conducted an indepth study, the results of which are reported elsewhere in this report.

Recommendation III

Commencing with fiscal year 1974, the division of vocational education should implement a fund distribution system which utilizes as decision criteria the objectives for vocational education in New Jersey. These objectves should be developed cooperatively in recognition and understanding of Federal, State, and local mandates and needs.

Status

The division of vocational education is moving towards the establishment of a fund distribution system which will utilize vocational education objectives. However it is uncertain whether or not the distribution of funds for fiscal year 1974 will be accomplished through the use of these objectives. The original distribution schedule for fiscal year 1973, as reported in the evaluation report for fiscal year 1971, was delayed by approximately 8 months. This delay was attributable to the problems encountered in achieving operational status with a new computer-based system. With many of the obstacles now overcome, the process for the fiscal year 1974 budget should be completed on a more timely basis.

Recommendation IV

The division of vocational education should identify and assess relevant data sources for information on the vocational needs and aspirations of New Jersey's population and strive toward obtaining better data on private sector training output and need. The methodology and tools for collecting the necessary data should be developed where this assessment process shows gaps in available information.

Status

Little concerted activity has been possible in regard to developing data on vocational needs except as reflected under recommendation V. The total data collection system is in some disarray, and hampered by such confusing variables that most of the current effort is appropriately directed toward improving the collection of accurate information on the status of the current system and developing standardized definitions to insure comparability of data.

Recommendation V

The division of vocational education should immediately begin efforts to accurately assess the size and characteristics of New Jersey's special needs population which includes disadvantaged and handicapped students. Upon this assessment new programs should be developed to provide a transition for more students thus identified from failure, due to a disadvantaged or handicapping condition, to success. The division should also continue to utilize the new criteria for disadvantaged students and its criteria and definition for assisting the handcapped through vocational programs.

Status

The division of vocational education is in the process of undertaking a study to develop a data base which will accurately describe the special needs population in the State. This data base will be developed to provide an input to the funding decision making process in the division, and will be designed so that information can be reliably updated on a sample basis as required. New Jersey's Division of Vocational Education has been a recognized leader in the development of effective programs for the special needs population, and through this study will have broken new ground in the effort to serve the needs of New Jersey's population.

Recommendation VI

The State advisory council should develop guidelines which outline the purposes, organizational structure, and suggested functions for local advisory committees and, with the endorsement of the division of vocational education, distribute the guidelines to all local advisory committees and LEA's.

Status

The advisory council is currently developing plans for a statewide seminar for the purpose of developing and publishing guidelines for local advisory committees.

Recommendation VII

The division of vocational education should continue to urge the sole remaining county in the State without a county board for vocational education, to establish such a board.

Status

Hunterdon County has not to date established a county board for vocational education. The county is currently operating under an educational master plan which has resulted in the designation of two of its four regional high schools as area vocational technical schools. A third regional high school is currently applying for AVTS designation, and it is planned for the fourth regional high school to apply for such designation in the future. During the interim, students desiring vocational programs not available in their high school can participate in shared time programs with one of the two AVTS's. In addition, the county operates adult education for over 6,000 students in evening programs. From the evidence it appears that the county is succeeding in meeting the vocational needs of its population under its current system. Additionally, the county has established an occupational coordinating council and there is a State established position of county cordinator of career education to be filled in the near future.

There are provisions under the master plan for adapting to a county board system. However, it appears likely that unless it can be conclusively demonstrated to the county that there will be distinct advantages in adopting a county board on vocational education, it will continue operating under its current system. The division of vocational education should give consideration to conducting a survey of the vocational education system in Hunterdon County to provide a basis for determining through objective criteria the need for a county board for vocational education.

Recommendation VIII

The division of vocational education should establish desired levels of implementation for the technology for children program and the introduction to vocations program, throughout the school system and a definitive schedule for achieving that level. Tied into this recommendation is the recommendation for item II which urges the State board of education to take a hard look at the career education concept and formalize plans to move the New Jersey educational system in that direction, providing the findings and evaluation of the career development program, statewide and nationally, indicate support for such movement.

Status

The division of vocational education has taken steps to establish realistic goals for implementing the technology for children and introduction to vocations programs throughout the school system, stated in terms compatible with the expected availability of resources. There is currently discussion in the division of moving the administration of these two programs from the exemplary and demonstration project area into a regular part of program services, thus recognizing their coming of age as an integral part of the vocational education system.

Recommendation IX

The division of vocational education should take the lead in developing and implementing models for vocational guidance, job placement and followup, for use in all LEA's.

Status

The division of vocational education has, since 1967, undertaken the leadership role in urging LEAs to emphasize vocational guidance, job placement and followup. However, priorities for the utilization of relatively scarce financial resources have precluded the development of models for use by LEAs. It is hoped that the recognition and emphasis accorded these functions by the office of education and the national advisory council will result in additional Federal funding for these purposes.

Recommendation X

The State board of education should encourage the establishment of a strong statewide public information program within the division of vocational education.

Status

The State board of education has not taken action to date to establish a statewide public information program in the division of vocational education. A part of this function has been adopted by the county coordinators of occupational education, thus meeting a widespread need for public dissemination of information on vocational education. Additionally, the State advisory council and the division of vocational education have cosponsored, together with other State and Federal agencies, a public information program directed at the returning veteran which has received wide recognition and results.

Recommendation XI

The State board of education and the division of vocational education should study and identify formal mechanisms to effect a meaningful coordination among agencies involved in, and having need for, vocational education programs, services or activities. The State advisory council on vocational education should assist in this effort.

Status

The State board of vocational education and the division of vocational education have not addressed themselves specifically to a comprehensive study for identification of formal mechanisms to effect coordination of those agencies having an interest in vocational education and services or activities. The State advisory council on vocational education has, as a result of its evaluation efforts for 1972, proposed a mechanism for increasing the cooperation between the department of higher education and the department of education. However, there is still a lack of coordination of efforts in developing training capabilities among the vocational education system, the manpower training system, and private schools, labor unions and industry.

Recommendation XII

The division of vocational education should develop reliable indicators for ascertaining current and projected teacher needs, and support teacher education at the level required to meet those needs.

Status

The State advisory council has addressed itself to developing more specific information on the functions and operation of the State's teacher education system as part of its evaluation effort for 1972. The findings of this effort are contained elsewhere in this report.

Recommendation XIII

The commissioner of education, with the approval of the State Board of education, should develop criteria for the classification of school districts under the provisions of the Bateman Act which will measure the quality of the school district's education system as determined by the system's output. The relevance and effectiveness of the educational process should be the most important measures of the quality of the program.

Status

In view of recent court decisions overturning the traditional local approach to the funding of school systems within a state this recommendation is probably moot. However, in any subsequent legislation which will provide more equitable distribution of funds to local education agencies the council will urge that the incentives in the form of additional funds be maintained and be provided to school systems on the basis of performance measured by the system output. The emphasis on relevance and effectiveness of the educational process and the development of accountability in the education system must be maintained.

Recommendation XIV

The State board of education and the board of higher education should continue to pursue efforts at coordination through the present joint committee which includes representation in both areas of interest, in matters relating to post-secondary vocational education. The committee should seriously consider the council's articulation paper which provides a basis for delineating the responsibility of community colleges and area vocational-technical schools in providing post-secondary vocational education.

Status

The State advisory council has undertaken a study on the relative roles, activities and relationships between the two systems in the State. The findings and recommendations are included in a study contained elsewhere in this report.

Recommendation XV

A model on public information for local education agency use should be developed.

Status

The State advisory council has developed and disseminated a model on public information for local education agency use which is appended elsewhere in this report.

Recommendation XVI

An analysis of Federal, State and local education agency funding support should be undertaken to establish the LEA's contribution toward implementing vocational education programs, services and activities.

Status

A preliminary analysis of Federal, State and LEA funding support was undertaken by the State advisory council as part of its evaluation effort this year. The results of this study are reported elsewhere in this report. As an outcome of this study, the council has undertaken the task of determining, on a sample basis, the actual outlay of local funds for vocational education, and the development of a model for use in providing this information on a regular basis.

NEW MEXICO

Introduction

The 1971 annual evaluation report for vocational education was submitted to the State board of education on September 30, 1971. The board received the recommendations for subsequent action, if deemed feasible, by the State department of education. Response to the recommendations is outlined in the 1972–73 State plan on vocational education and will be presented in summary in this part along with additional council reactions.

Guidance and Counseling Services

Recommendations

1. Career awareness group guidance programs should enroll a minimum of 8,500 students, and a means of support for these programs should be developed.
2. The State board of education should strengthen the total guidance and counseling system by entering into cooperative agreements

with educational institutions involved with training counselors in order to provide course offerings relevant to career orientation.

3. The State board of education should encourage the use of Federal funds earmarked for exemplary purposes for initiating additional experimental programs in career development.

Response

During 1971–72, more than 4,500 students were enrolled in career awareness programs sponsored through part D exemplary funds. These served as models for many State and local efforts beginning in the fall of 1972. The "Minimum Standards for Public Schools in New Mexico" was revised to mandate career awareness programs within every elementary school in the State by July 1, 1973. The problem of additional funds to initially coordinate this task and develop materials remains to be resolved.

Recommendation

4. The State board of education should cooperate with the State manpower planning council to develop a system of cross-utilizing manpower resources to enhance the occupational guidance system.

Response

The superintendent of public instruction, along with other agency heads, personally participates on the State manpower planning council. The Chairman of the State advisory council on vocational-technical education also sits on that council. The 1972 legislature passed a bill (S.B. 82) creating an industrial vocations committee comprised of membership from the State department of education, the State advisory council on vocational-technical education, the State planning office, the State department of development, and the Employment Security Commission. The primary charge of this committee is to identify manpower needs in the State and to recommend appropriate preparation to meet these needs.

Recommendations

5. The person chosen for the position of State vocational guidance counselor should be able to take a leadership position in providing career orientation services for all public school counselors.

6. A teacher-training institution should be established for the area of vocational guidance and counseling.

Response

The State department of education has employed a person to coordinate all available resources toward a comprehensive statewide career education program, a primary component being the guidance and counseling function. However, New Mexico is one of the few States that has not conducted a career guidance workshop through the program grant awarded the University of Missouri.

Data Collecting and Reporting

Recommendation

The State board of education should encourage the division of vocational education to undertake a cooperative effort with State agencies requiring similar occupational and manpower data to assist the Employment Security Commission in developing the capabilities necessary to serve the information needs of these agencies.

Response

The State division of vocational education has taken the leadership role in extending its cooperation to the Employment Security Commission in an attempt to develop a compatible information system. Plans for this should be completed within fiscal year 1973.

Agency Coordination

Recommendation

The State board of education should explore the possibility of establishing cooperative arrangements with postsecondary area vocational schools to assist secondary school districts in the development of multilevel career development programs.

Response

Recent State board action opened the door for contracting postsecondary education institutions to assist secondary school districts in developing multilevel program sequences for career development. In addition, the education amendments of 1972 (Public Law 92-318) should stimulate a complimentary planning effort identifying cooperative arrangements of this nature.

Industrial Development

Recommendation

The State board of education should continue its effort to expand the industrial development training activities within the division of vocational education and should support legislative action necessary to secure additional State funds to conduct such programs.

Response

Legislation (S.B. 87) was passed giving the State division of vocational education $250,000 for conducting startup training programs for new and expanding industries. The State advisory council on vocational-technical education worked feverishly with the State department of development and many local chambers of commerce to assure passage of this measure.

Health Service Occupations Programs

Recommendations

1. The division of vocational education should continue to expand existing programs to meet both the actual and anticipated manpower needs in the health service occupations field.
2. Introductory and core programs which would acquaint students with this area and which would prepare them for specific paramedical courses should be encouraged at both the elementary and secondary level. Priority for the establishment of these programs should be given to rural communities in the target areas.
3. The division of vocational education should establish training programs for one or more of the following occupations in an effort

to meet the rapidly increasing demand for skilled personnel: dental hygienists, physical therapists, medical lab technicians and librarians, radiologic technicians, orthopedic assistants, prosthetists, and health aides. These additional health oriented programs could be initiated in two ways. First, as exemplary programs to be developed with the assistance of appropriate medical institutions or second, as cooperative programs inaugurated in conjunction with related private, State, and Federal agencies such as the southwest regional medical program.

4. An extensive effort should be made to establish a teacher-training facility for all areas of health service occupations.

Response

Four hundred and sixty-three additional persons received preparatory training in health related programs in fiscal year 1972 than in fiscal year 1971. The greatest increases were in the nursing assistant, nurse (associate degree), and medical assistant categories, all three of which rank high in occupational manpower needs. Two new offerings in inhalation therapy and health aide were instituted for the first time to serve additional demands along with an emergency technician program sponsored by the southwest regional medical program in cooperation with the division of vocational education. Many other positive actions have been taken to enhance the total health education area. The division of vocational education sponsored a comprehensive planning conference for health manpower training and utilization. The conference, after three days of discussion, issued the following recommendations which the council unanimously endorses for action in fiscal year 1973:

1. To reevaluate the current funding sources available and to explore alternative methods of adequately financing health occupations programs.
2. To develop a master plan for designing and implementing health occupations programs which considers the needs, facilities, and populations of the various areas within the State.
3. To employ a teacher-educator for health occupations programs as a joint effort of a State university and the State department of education.

Financial Support—Secondary Level

Recommendations

1. The State board of education and the State office of public school finance should mutually develop a method for disbursing all State and Federal funds for vocational education programs in elementary and secondary schools in New Mexico pursuant to the following guidelines:

    A. Funds provided through this system should be a result of an annual comprehensive vocational education plan submitted by each district to the State board of education for approval on the basis of criteria cited in the State plan on vocational education. Such a proposal should have the concurrence of the local advisory committee(s) for each area of training being requested.

    B. The distribution system should recognize efforts of the school district to implement a total vocational education program, grades 1 through 12, by providing supplemental incentive grants to the district.

The said agencies should create and support legislation necessary to the implementation of this method.

2. The long-range planning function should be formalized at the State level to assure a statewide systematic approach to program planning. Provisions should be subsequently made to create regional vocational education supervisory positions for the purpose of providing assistance to the local school districts in the planning task and to serve as a liaison to the division of vocational education.

Response

It is generally agreed by the State department of education and many involved in vocational education that a completely new system of allocating State and Federal resources is essential. Yet, action to implement such a system has been hindered by the diffusion of fiscal management authority. State funds for public schools, K–12, are controlled by an office outside the jurisdiction of the State board of education. To correct the present conditions, all funds for vocational education programs would have to be identified in an autonomous fashion causing a total restructuring process for that current public school budgeting system. Though the task would be strenuous, the council maintains this as its matter of top priority. Action taken by the State Board of Education approving the reorganization of the Division of Vocational Education to include an expanded planning function has enhanced the program administration responsibility. Steps must be taken now to more closely coordinate a revised fiscal management effort with the program development and administration capability.

Financial Support—Postsecondary Level

Recommendations

1. The State Board of Education should recognize the need for a long-term plan to be developed in light of projected needs to secure and allocate State funds for constructing facilities at postsecondary area vocational schools.

2. The weighting scale for distributing Public Law 90–576 funds to area vocational schools should be refined to comply with a total statewide program planning and budgeting effort.

Response

Legislation was passed during the past year providing $1,250,000 of State funds primarily for constructing facilities at postsecondary area vocational schools. These funds, coupled with a local matching effort, will permit the housing of two statewide programs of top priority—construction trades and diesel mechanics.

The method by which postsecondary funds appropriated under Public Law 90–576 were distributed, again, was not consistent with a total program planning and budgeting system. The education amendments of 1972 (Public Law 92–318) will act as a catalyst in developing a budgeting process for post-secondary occupational education based on State-wide planning, but additional steps, as described in Part II—"Financing Vocational Education," must be taken to assure a coordinated planning and budgeting system for both secondary and post-secondary programs.

NEW YORK

In its second annual report, the New York State Advisory Council identified a number of concerns and made recommendations for the satisfaction of these concerns. This report shall look at these recommendations and the progress made concerning each. The Council is pleased that actions were initiated by the Office of Occupational Education, which led to the completion of several recommendations.

Local Advisory Councils

The first two recommendations of the Council were centered on the establishment of a statewide system of communications with local advisory councils on occupational education. These local Councils are mandated by state education law and must submit annual summary reports and lists of members to the State Education Department. In the recommendations governing these councils, it is clearly indicated that the State Advisory Council may be the recipient of information from the local advisory councils.

Specifically, the State Council recommended in its second annual report (1971–72) that:

a. the New York State Board of Regents and the State Education Department support the Council in establishment and maintenance of a statewide advisory council communications network, and

b. the area district representatives of councils support and participate in a statewide conference.

The State Education Department replied affirmatively to the Council suggestion for a statewide conference for local advisory council members. Action was initiated toward the end of the fiscal year for a conference that would be held in the spring of 1973. The Council will conduct this conference and is receiving cooperation from the State Education Department.

PLANNING IN REGIONS

The third recommendation of the Council was that the occupational education planning regions produce plans which would ". . . take full advantage of their new opportunity to vitalize the occupational education in their areas." New York State was divided into 19 "occupational education planning regions." Since their inception in connection with the 1968 Vocational Education Acts, they have provided a basis for direction of activities and funding within their respective regions. The effectiveness of the regional plans and their committees, however, continues to provide the State Advisory Council with a program that will need an annual review and evaluation.

STATE PLAN

The final two recommendations of the Council as stated in its second annual report concerned the State plan for occupational education. In essence, the recommendations were that:

1. The State Plan format be continued and refined, and
2. The "overview statement" of the [illegible]te plan be continued.

It was most gratifying to the Council that the format of the State plan had been approved by the U.S. Office of Education and used as an example for all States. Further, the New York State plan continues to be refined, with special effort made on the part of State Education Department personnel to explain the use of the State plan to the general public as well as to agency personnel.

The Office of Occupational Education continued preparation and distribution of the so-called "overview" for the State plan. The Council is pleased with this condensation as a most practical approach to use and understanding of the State plan.

NORTH CAROLINA

Recommendation 1

That the State Board of Education attempt some analysis of occupational education training being conducted in private schools, other commercial concerns, and in industry and that information be used in planning and evaluating efforts of the State board agencies in the area of career education.

Response

Priority given in fiscal 1973 to a research project designed to ascertain the occupational education training output of non-public schools and industry.

Recommendation 2

That the State Board of Education designate one or more of the multi-county planning regions to be used in pilot efforts for planning, articulation, and evaluation of occupational education programs.

Response

The State Board has designated Planning Region H comprised of Moore, Montgomery, Anson, and Richmond Counties as the pilot region for this project. An exemplary project was developed and submitted by Moore County Board of Education but was not funded due to insufficient part D funds.

Recommendation 3

That articulation efforts between secondary and post-secondary institutions be continued and further strengthened to the end that programs—and guidance activities—at the two levels are complementary and provide a planned transition from high school occupational education programs into post-secondary occupational education programs.

Response

The State Board has designated the commissioner's share of part C funds for a research project designed to develop a model K–14 program of career education involving two local secondary school systems and one post-secondary community college. This project was implemented in fiscal 1972 and will continue in 1973. The State Board staff continues to emphasize articulation between secondary and post-secondary schools through cooperative planning and staff development.

Recommendation 4

That job placement and follow-up of graduates of occupational education programs be encouraged as integral parts of programs.

Response

The State Board has responded to this recommendation by:

Emphasizing placement as a specific objective.

Designing a follow-up study to be conducted by the occupational research unit.

Encouraging LEAs to conduct follow-up studies.

Job placement and follow-up integral components of the Caldwell career education project.

Recommendation 5

That vigorous State level leadership be given to promoting the involvement of employers and lay citizens in planning, promoting, and evaluating occupational education programs through the development and use of area and administrative unit level advisory committees.

Response

The State board has responded to this recommendation by:

Organizing at the State level, an advisory committee for each program area.

Encouraging the use of advisory committees at the local level in the development of local plans and in the evaluation of local programs.

Recommendation 6

That strong leadership and encouragement be given to schools and school systems with limited occupational education offerings to increasing the scope and quality of opportunities available to their students.

Response

Delegating authority to LEA's for the determination of the most appropriate uses of resources (man-months, equipment funds and teaching materials).

Providing State level leadership in annual and long-range planning.

Requiring each LEA to develop a long-range plan for occupational education, K–12.

Developing and funding two research projects designed to produce a model for occupational education in small rural schools.

Recommendation 7

That the mutually beneficial relationships developed between the State board and the State advisory council on vocational education be continued and strengthened during the present year.

Response

The State board has responded to this recommendation by:

Involving the executive director of the council on the task force for the development of the State plan, on the planning council of the division of ocupational education, and in the weekly meetings of the division management staff.

Involving the executive director of the council and members in three regional public hearings.

Maintaining a close liason with the council throughout the year.

Recommendation 8

That occupational education youth organization activities continue to be recognized and strongly encouraged and supported as integral parts of occupational education curricula.

Response

The State board responded to this recommendation by:

Adopting a special resolution in support of occupational youth organizations and disseminating this resolution to superintendents and principals of secondary schools.

Emphasizing occupational youth organizations as a stategy for 10–12 grade target group in State plan.

Assigning State staff responsibility for promotion of youth organizations in occupational education.

Recommendation 9

That the State board of education and the State advisory council on vocational education jointly sponsor at least three public meetings in stategic geographical locations.

Response

The State board responded to this recommendation by jointly holding public hearings at the following sites:

Kinston (Community college)
Greensboro (A. & T. University)
Asheville (Lee Edwards High School)

NORTH DAKOTA

Recommendation 1

The Council is concerned about the low percentage of population from ages 16–64 that are being served by the adult education programs in North Dakota. The State board for vocational education is encouraged to upgrade existing programs and promote additional programs to meet the North Dakota citizens' needs according to employment opportunities and manpower demands. It is further recommended that the State board for vocational education take action to have the funding and operation authority for adult basic education program under the division of continuing education, located on the campus of the University of North Dakota transferred to the State board for vocational education.

The State board's action in regard to this recommendation includes expanded offerings and new programs at the postsecondary level serving 363 additional students. The adult programs have been expanded and new courses added. An estimated 6,744 adults will be served in 1973. This reflects an increase of 1,132 persons over fiscal year 1971.

Increased attention has been given to vocational guidance services that will better inform potential students of the postsecondary programs. A traveling workshop for 35 high school counselors to visit each of the four postsecondary area vocational schools was conducted during the summer of 1972. A brochure describing the postsecondary vocational offerings has been published and disseminated statewide. A directory of vocational training opportunities in North Dakota will be updated and distributed throughout North Dakota.

The adult programs are receiving increased emphasis on better serving the disadvantaged. Apprenticeship programs are being expanded and a new statewide firemanship program is being planned. The farm management training program for veterans was initiated during the year. The adult consumers-in-the-know program is being expanded to additional areas of the State. Special adult programs are being planned for disadvantaged including programs at Mandaree, Solen, and Dunseith. Adult offerings in each of the programs are being increased.

There has been no action taken in regard to the adult basic education unit being transferred to the State board for vocational education.

Recommendation 2

Federal guidelines place restrictions upon the State board for vocational education in solving problems concerned with disadvantaged and handicapped students. The State board for vocational education needs more flexibility in methods of serving the disadvantaged and handicapped. It is recommended that the State board encourage congressional action to have these Federal restrictions modified so that they can serve the disadvantaged and handicapped according to the needs of rural North Dakota.

A recent memorandum from the U.S. Office of Education reflects a report of classification system of categories for the disadvantaged and handicapped. This report clearly identifies congressional intent for the set-aside provisions of part B of the act. These funds are to be used for persons who have disadvantages or handicaps which prevent them from succeeding in regular programs designed for the normal or average person. It is the State's concern that it is most difficult to serve the disadvantaged in regular programs as long as there is an absence of Federal or State/local funds to initiate programs for our rural areas. How can we serve disadvantaged students in a regular vocational program if such programs do not exist? Persons should be classified as disadvantaged because of poverty, neglect, delinquency, race, or other similar reason(s). The memorandum clearly states the intent of Congress is not to use these funds to treat the cause but rather to provide supportive services to treat the effect. For example, many persons can perform successfully in vocational education programs even though they are poor, neglected, member of a minority group, etc. However, if the cause for being disadvantaged is neglect, and such neglect effects an unacceptable behavior pattern or learning disability, the additional cost of a supportive or remedial service can be funded from the set-aside portion of part B. At the same time, however, if a student has been identified as American Indian and if the cause (Indian) does not deter or prevent this person from succeding in an existing regular vocational program, that program cannot be supported by part B set-asides. We believe the local educational agencies have interpreted (in the absence of guidelines) that once you have identified the majority of students as disadvantaged, they (local educational agency) are eligible for increased funding under the set-aside provisions. Unless special services are provided, the State will take the position that these programs will not be eligible and that only the special services provided to treat the effect will be funded by the set-asides.

Recommendation 3

The Council recommends that the disadvantaged and handicapped students be served in regular, on-going programs wherever possible. As a result of additional clarification, the State Board for Vocational Education will encourage local educational agencies to provide supportive services for the disadvantaged persons in regular, on-going programs. The question still exists as to what happens to the disadvantaged persons in communities which cannot support a regular vocational education program.

Recommendation 4

Job placement services for vocational education students on the secondary level are generally inadequate. It is recommended that the State board for vocational education encourage schools which operate vocational education programs to upgrade student placement in jobs and work stations.

The action taken in regard to this recommendation includes:

a. Continued development of the intensive guidance component of the statewide exemplary program which includes placement and followup activities.

b. Funding of a research and development project in the Bismarck school district (June 1, 1972–August 15, 1973) that will deal specifically with placement activities. A person will be employed to work in the school system to develop a model program that eventually will be shared statewide.

c. The employment of a full-time supervisor of vocational guidance has increased the assistance to local schools in developing and improving placement activities.

d. Increased expansion of the cooperative work experience programs will enhance the job placement of more students.

The following information was presented as a followup report to the master plan committee as a part of the vocational education week activities February 13–19, 1972. The recommendations of the master plan committee were presented to the State board for vocational education. The State director and assistant State director for vocational education provided the following progress report to the recommendations. Nine of the council members were members of the master plan committee.

Recommendation No. 1.—The State board for vocational education should recommend to the State board of higher education that institutions of higher learning should offer a course in the philosophy of vocational education at the undergraduate and graduate levels for potential administrators and guidance personnel and that such a course include the world of work.

Commissioner Raschke met with the State board for vocational education shortly after the master plan recommendations were submitted to the board to discuss this recommendation. UND has initiated a program in Dr. Rowe's departments offering a philosophy of vocational education in which administrators and I believe guidance personnel may enroll. There is a great deal of activity at the present time in implementing the world-of-work concept into the teacher education programs.

Recommendation No. 2—The State board for vocational education should promote inservice education for teachers, counselors and administrators.

Included in the inservice education for teachers, counselors and administrators are:

a. All-service summer conference (explained).

b. A summer seminar for counselors at NDSU.

c. Counselors workshop conducted at Dunwoody Institute, Minneapolis, a limited number of administrators attended this workshop.

d. A traveling week-long workshop for counselors will be conducted this summer. They will visit each of the four postsecondary institutions offering a comprehensive vocational program.

e. The State board has conducted a 2-day workshop on vocational education for secondary principals.

f. We will be participating in the elementary principals' conference again this year.

Recommendation No. 3.—The State board for vocational education should prepare guidelines concerning minimum essentials for program operation in each service of vocational education.

A manual or guide is presently being prepared by the State board staff that will include information referred to in this recommendation.

Recommendation No. 4.—Minimum requirements for a regular certificate (vocational education teacher) should include (a) evidence of adequate experience in the area in which he is to teach (b) evidence of satisfactory completion of minimum requirements established by the State certification authorities.

The State plan for vocational now includes the minimum requirements as contained in this recommendation. Present State law requires a degree in each of the vocational services except trade and industrial, technical, and health. This applies to the secondary level. The law also requires that the teacher be teaching in the major or minor subjects. However, we require wage-earning experience above the degree.

Recommendation No. 5.—Minimum requirements for the provisional certificate should include (a) not less than 3 years trade experience in the area in which he is to teach (b) completion of not less than one quarter credit of instructor education and orientation (c) minimum of three quarter credits of approved vocational teacher training courses annually for renewal (d) such a certificate to be renewable annually for a maximum of 5 years.

This recommendation is included in the State plan. These requirements apply to the trade and industrial, technical and health. Non-degree persons are eligible for certification under this provision.

Recommendation No. 6—There should be established a vocational teacher permit designed for persons whose main vocation is not teaching. Minimum essentials would be (a) 3 years experience in a wage earning capacity in an area in which he will teach (b) demonstrated skill proficiency (c) demonstrated ability in communication skills.

We have not established a vocational teacher permit. It has not been necessary up to the present time. Also, I believe an amendment in existing State law will be necessary before such a permit would be possible in the vocational areas requiring a degree to teach at the high school level.

Recommendation No. 7—The State board for vocational education and the State department of public instruction should prepare and distribute materials concerning policy and procedures for vocational teacher certification.

The manual or guide referred to earlier will contain specific policies and procedures for vocational teacher certification. This will be developed in cooperation with the department of public instruction. We now have individual service handouts that contain the information. We do discuss teacher certification with Mr. Ray Bangs, department of public instruction.

Recommendation No. 8—The State board for vocational education should promote reciprocity with other States in vocational teacher education as well as cooperation between institutions of higher education with the State.

A formal agreement of reciprocity with other States has not been developed.

However, there is a great amount of activity nationally in this area. The State plan does contain an agreement that may be used for this purpose when appropriate.

It appears that cooperation between institutions of higher education within the State is becoming greater.

Recomendation No. 9—A vocational teacher training department should be established at the State school of science but not including vocational agriculture, vocational home economics, distributive education or office education.

A full-time teacher educator for the trade, industrial, technical and health services has been employed by the State school of science. This person's salary and travel are funded totally by the State board for vocational education. (Explained concept of providing teacher education in various locations throughout the State. Taking courses to the people. Last year 19 courses were conducted—334 persons were served.)

Recommendation No. 10.—The State board for vocational education should coordinate the promotion, encouragement and financing of the recruitment of vocational teachers.

The State board staff has provided liason services for schools in need of vocational instructors. (Contacted prospective teachers—informed local administrators of instructors seeking positions—worked closely with teacher educators in placement activities.) We have not provided direct financing in the recruitment of instructors as recommended.

Recommendation No. 11.—The State board for vocational education should appoint a director of communications and public relations.

We have not been in a position to add a full-time director or coordinator of public relations. However, we have a staff member who serves in this capacity on a part-time basis. Don Erickson does an excellent job in this area. This recommendation and two or three recomendations Larry will discuss are closely related. Don's efforts will be discussed later.

Recommendation No. 12—Standard forms for reimbursement, administration, justification and supervision should be reviewed and revised with intent to standardize and eliminate duplications.

The number of forms has been reduced substantially and standardized. I believe there were approximately 76 forms being used when this recommendation was made. We utilize only a limited number of forms. Explained: (a) Program justification (b) claim.

We do continue to utilize certain individual service reporting forms, but are attempting to reduce these to a very minimum.

Recommendation No. 13—The research coordinator should be charged with the responsibility of recommending areas of employment possibilities and proposed programs.

The research coordinator is charged with the responsibility of providing manpower needs information to Larry who is in charge of planning. This information is used to develop the statistical portions of our State plan, and is also considered by the review committee when reviewing program applications.

Recommendation No. 14—A formula for the distribution of funds on the secondary and postsecondary levels should be developed.

The formula for distributing part B funds has been developed. The present formula establishes a range of 40–60 percent reimbursement at the secondary level and 50–53 percent for the approved postsecondary regular programs.

Recommendation No. 15—The State board for vocational education should initiate, through the State director, a statewide network of vocational education programing to assure articulation between secondary and postsecondary programs and interrelation between postsecondary programs in North Dakota.

There has been a great amount of effort devoted to vocational education programing between the secondary and postsecondary programs. In the trade and industrial education areas, such as electronics, auto mechanics, welding and so on, have met to discuss curriculum and articulation.

The successful interrelation activities between the postsecondary programs has progressed very rapidly. This is due to regular meetings conducted by our office with the administrators of the postsecondary institutions involved in implementing H.B. 35 programs. Also, the State school of science has provided excellent leadership in this effort. Recently a curriculum coordinating council of the 2-year postsecondary institutions was formed. The purpose of this group is to coordinate the efforts of those institutions in an advisory capacity.

Recommendation No. 16—The State board for vocational education should adopt a policy of requiring the establishment of local or area vocational advisory committees.

This recommendation has been implemented. All program applications for implementing or continuing vocational offerings must contain proof of an active local advisory committee.

Recommendation No. 17—A statewide uniform nonresident tuition policy for all secondary vocational education students should be adopted.

This recommendation was considered when we established a rate to be charged by the secondary area schools for serving out-of-district students.

This charge was based upon the rate of one-seventh of the county average or district average whichever is less. (Referred to the term "tuition." Explained cost-sharing concept.)

Recommendation No. 18—The State board for vocational education should be responsible for the administration of vocational education and should meet three times annually with the board of higher education to discuss and plan vocational education for the State.

(Explained that meetings are being held between representatives of the two boards.)

Recommendation No. 19—The State board for vocational education should establish minimum qualifications and guidelines for administrators of vocational education programs.

(Explained local directors' qualifications as contained in the State plan.) (Explained job description required of each local director.)

Recommendation No. 20—A plan to consolidate the efforts of cooperative teacher coordinators should be developed in order that this function could be performed by one person instead of one person for each subject matter area.

(Explained the experiment with one coordinator for all service areas at the local level.)

Recommendation No. 21—Prevocational programs should be encouraged and should be reimbursed as soon as sufficient resources are available.

We feel prevocational programs are very important—especially as we become involved in the career development concept. (Explained the status of industrial arts as it relates to possible vocational funding.)

Recommendation No. 22—Reimbursement of salaries for local directors of vocational education should be limited to those schools which conduct programs in at least five service areas of vocational education.

State board for vocational education's policy is in accordance with this recommendation. Limited funds in this line item within our budget prevents us from reimbursing all school now offering five service areas.

Recommendation No. 23—School districts should join together to form a district with a large enough tax base and pupil enrollment to support sound vocational education programs in all five service areas.

We have been meeting with various districts who are exploring the possibility of joining together to provide vocational education.

Recommendation No. 24—Transportation costs incurred in sending vocational pupils to other schools should be the obligation of the sending district.

We are not expending funds for transportation at the present time.

Recommendation No. 25—The reimbursement formula for secondary programs which should be used and which complies with Federal requirements is presented in the chapter on finance.

(Discussed in recommendation No. 14.)

Recommendation No. 26—The State school of science trade and technical programs should be expanded and strengthened.

The State school of science programs have been expanded and strengthened on a very well planned basis. The funds being provided to the State school of science by the State board for vocational education have increased to approximately $200,000 per year.

Recommendation No. 27—A trade and technical school in the western part of the State should be developed when it is needed.

The State board for vocational education has not received a proposal for a vocational school in the western part of the State. However, when the need is justified the State board will certainly consider this recommendation.

Recommendation No. 28 — State support for junior colleges should be paid on current enrollment.

Section 15-18-09, North Dakota Century Code, specifies the method of payment based on the past school year's enrollment. The legislation authorizes the institutions to verify attendance on or before July 1. We then verify the claim and submit a certified statement to the Director of Accounts and Purchases for payment. It appears to us the law must be amended before we can consider this recommendation.

Recommendation No. 29.—Existing adult vocational programs should continue to be financed with local, State and Federal funds.

Adult vocational programs are being financed with local, State and Federal funds. (Local funds are generally fees paid by students.)

We are reimbursing approved vocational adult programs at the rate of 50 to 75 percent.

Recommendation No. 30—Self-financing of adult vocational education programs are feasible and should be promoted.

A self-supporting concept is generally being utilized by local school districts.

a. Fees.

b. Financial assistance from the State board for vocational education.

Recommendation No. 31—An expanded use of facilities and equipment for adult vocational programs at all schools operating vocational programs should be encouraged.

We have increased our efforts in promoting adult vocational education programs.

a. Although enrollment may have increased, still not adequate.

b. This area has also been a concern of the State advisory council.

Recommendation No. 32—Each school receiving vocational education funds should submit documented evidence of the need for those programs.

Schools and institutions are required to submit:

a. Local manpower needs survey.

b. Annual and long-range plans to determine projected enrollments, vocational education needs, dropout rate and unemployment (forms 1.5 and 1.6).

Recommendation No. 33—There should be a systematic evaluation of all programs to include followup studies and employer interviews.

We experimented last year with an indepth systematic evaluation involving our entire supervisory staff. This type of evaluation was completed in at least two schools. We are in the process of refining the system and will be evaluating additional schools this year. Involve business and industry. Have had requests from several schools for this type of evaluating.

Recommendation No. 34—There is a definite need to initiate research in the area of attitudes (students, educators, employers, and citizens) regarding vocational education.

Study entitled "A Survey of Parents of North Dakota High School Students Who Were Seniors in 1966," was funded by the RCU in 1967. Ted Renner is currently conducting survey of parents, teachers, and administrators in the State to determine attitudes towards area vocational school concept and reason so few schools have participated in them.

Recommendation No. 35—The manpower survey—to determine employers needs—being conducted by the State research coordinator should be continued on a statewide basis.

Employment security bureau has concluded coding of occupational opportunities survey and has produced data comparing demand and supply projections for next 5 years for high demand occupations. Still awaiting further data from study. Need to determine method for continually updating information.

Recommendation No. 36—The State board for vocational education should provide inservice workshops designed to improve research and research implementation skills of teachers and supervisors.

Nothing has been done in this area to my knowledge.

Recommendation No. 37—A systematic approach to the dissemination of research and research related information should be provided by the State coordinator of research.

We have initiated RCU newsletter and "Alert-O-Gram" publications as well as having developed two brochures concerning the RCU and dissemination services to all educators in North Dakota, relying heavily upon the more than 4,000 documents pertaining to vocational education presently available in the ERIC system. Concern we have is the very few instructors and administrators who take advantage of this service.

Recommendation No. 38—Teacher training institutions in cooperation with State supervisors should implement research studies to determine the projected needs for vocational teachers and initiate a system for recruiting persons into training program.

Vocational agriculture has recruitment program through NDSU. Don Erickson feels it is very successful. Office education has study conducted by UND on characteristics of office education coordinators in the State.

Great effort should be made in this area in the near future.

Recommendation No. 39—The supervisor of vocational guidance should be assigned the additional duty of coordinating an exchange of ideas and information between agencies with responsibilities in educational, social and vocational life of individuals.

No one individual assigned.—Efforts have been made to coordinate all our services with other agencies. The Governors manpower council is an example. Our career development program has involved many agencies.

Recommendation No. 40—A portion of the budget of the State board for vocational education be allocated for the promtion and improvement of vocational counseling in North Dakota.

Budget supports a vocational guidance supervisor and materials. Budget review committee turned down request for $231,000.00 last session.

Recommendation No. 41—The counselor education departments at the State universities should give serious thought to including vocational courses with more depth and variety of experiences and practicum in occupational counseling in their counselor training.

To our knowledge NDSU has developed a program that is vocationally oriented. Students placed in actual work roles for portions of training. At present we are not funding counselor education programs.

Recommendation No. 42—The counselor education departments at the State universities should consider expanding the curriculum to include refresher courses made readily available to present counselors for the purpose of upgrading their professional abilities in relation to the world of work.

To our knowledge NDSU has developed a program that is vocationally oriented. Students placed in actual work roles for portion of training. At the present we are not funding counselor education programs.

Recommendation No. 43—A systematic followup program should be developed to evaluate counseling services. Followup should include persons who have not had counseling opportunities and/or who have dropped out of school.

Nothing has been done specifically in the counseling area. Some local schools are doing followup studies on their own.

Recommendation No. 44—The North Dakota Employment Security Bureau in cooperation with other State agencies should develop and distribute occupational information to all organizations concerned with vocational guidance and libraries throughout the State.

This is being done, materials are being sent to counselors.

Recommendation No. 45—The State department of public instruction should provide a central clearinghouse for occupational information including training in the use of that information and should encourage all schools to purchase and use the occupational outlook handbook.

This is being done. In cooperation with vocational guidance we purchased the occupational outlook handbook—one copy per high school.

Recommendation No. 46—A public information dissemination system should be developed and should use existing media to create an understanding and appreciation of the importance and dignity of employment in fields for which preemployment training is based on vocational and technical education.

Partially completed. Vocational education on the air, vocational newsletter, six 1-minute films.

Recommendation No. 47—A public information coordinator should be in direct communication with the State advisory council for vocational education and should implement information programs directed toward prospective students, parents, teachers, and the general public.

We do not have a public information director at present—legislature did not approve any new position. However, six films were developed in cooperation with the State advisory council. They are suitable for public service spots on T.V.

Recommendation No. 48—A two-way system of receiving and sending public information should be developed to allow feedback to the State board regarding program operation.

Not perfected but is in operation. Have had a public hearing the last 2 years, public meetings with school boards and superintendents and secondary school principals.

Recommendation No. 49—New curricula in vocational agriculture which updates and expands current programs should be developed.

Has been started. Curriculum guide developed stressing off-farm occupations. Fargo-developing a model curriculum suitable for larger schools.

Recommendation No. 50—Present programs of home economics supported by vocational funds should be studied and reevaluated as to their application to the needs of the State.

Consumer and homemaking and occupational home economics programs have added semester offerings to better serve needs of young people enrolled. Consumer and homemaking funded at reduced rate.

Recommendation No. 51—Programs in distributive education and office education should be evaluated and expanded with an emphasis on funding programs which provide opportunities for substantial numbers of students.

Office education—1970—48 secondary programs.
Office education—1970— 7 postsecondary programs.
Office education—1971—52 secondary programs.
Office education—1971— 6 postsecondary programs.
Distributive education—1970—12 secondary programs.
Distributive education—1970— 4 postsecondary programs.
Distributive education—1971—15 secondary programs.
Distributive education—197— 5 postsecondary programs.

Recommendation No. 52—There should be a substantial expansion of trade and industrial training opportunities and opportunities for training in health occupations for secondary school students.

T & I—1970— 6 schools—632 students.
T & I—1971—12 schools—783 students.
Health—1970—2 schools— 41 students.
Health—1971—3 schools—118 students.

Recommendation No. 53—The State board for vocational education should take heed of the duplicatory nature and function of services which presently exist in the State.

This is being done by the State board's review and approval of all programs. There is in existence a council on vocational education for the post-secondary level. The four 2 year colleges and Commissioner Raschke and Carrol Burchinal. They review all new programs.

Recommendation No. 54—The State board for vocational education should approve programs with the stipulation that the facilities and equipment funded therein be made available to complement and supplement programs currently existing in each area.

This is being done.

Recommendation No. 55—The development of all new programs should be accomplished in a manner as to insure consideration for students with special needs and should involve officials designated to work with those exhibiting special needs.

A part of the program applications. Reuben Guenthner provides leadership from our office.

Recommendation No. 56—The State director of vocational education should urge the involvement of regional offices of Health, Education and Welfare in order that they become aware of the interest on the part of the States so that funding might be made available to stimulate and encourage the development of programs which serve people rather than the State.

This is being done. Regulations, however, are written in Washington.

Recommendation No. 57—Cooperative diversified occupations programs should be developed in schools if they cannot adequately support separate and distinct programs of vocational education.

This is being done at Fargo, Belcourt, Wahpeton, Jamestown, and Cooperstown.

Recommendation No. 58—Administrative procedures should be developed in order that schools can share facilities and/or staff. Such programs should be financed on a cost sharing basis by State, Federal and participating school districts.

This is being made available at Fargo and Dickinson area vocational schools.

Recommendation No. 59—The State board for vocational education should select a limited number of school districts who have building facilities and desire to expand exploratory vocational programs and should expand programs in these schools. All schools should have equal opportunity to participate.

Have used State school of science facilities last three summers. Model developed here, if funds available, will be taken to more schools.

Recommendation No. 60—Existing facilities should be utilized when possible and when such facilities are determined by the State board for vocational education to be adequate. When new facilities are necessary they should be designed for multi-use purposes.

This is being done. Vocational services are sharing facilities.

Recommendation No. 61—Experimental mobile equipment units to travel between cooperating schools should be explored and should be fully financed by the State board for vocational education and operating costs should be shared by the cooperating school districts.

This has not been done, has been studied, funds limiting factor.

Recommendation No. 62—An advisory committee on new facilities at the postsecondary level should be established.

No special committee on facilities, council will study this.

Recommendation No. 63—Any new facilities at the postsecondary level should be constructed only at existing postsecondary institutions.

No separate facilities have been built. House Bill 35 recognized those that went to existing institutions.

Recommendation No. 64—The State board for vocational education should continue to contract with private schools for short-term students.

MDTA utilizes private schools on individual referrals.

Recommendation No. 65—The State board for vocational education should pursue the availability of tests to be used as guides for advance placement of students in postsecondary schools. If tests are not available, the board should take the necessary steps for the development of such tests.

Articulation methods are being developed. Some postsecondary programs presently recognize secondary level training.

Recommendation No. 66—There should be continued communication with labor unions regarding placement of students, program review, evaluation and apprenticeship programs.

This is being done, their representatives serve on local advisory committees, State utilization, etc. We participate in support of apprentice programs.

Recommendation No. 67—The State board for vocational education should take a full inventory of all existing and potential facilities in terms of current and future needs.

Has not been completed.

Recommendation No. 68—Adult vocational education programs should meet the needs of all students, including social and cultural needs and should facilitate entry into more advanced vocational and technical programs.

Adult programs have been expanded. There is a question mark on how much we have done to impact on social and cultural needs.

Recommendation No. 69—Schools should be encouraged to become involved in student placement (job) activities.

There is a weakness of present schools except State school of science. We have received a grant to employ a person to work exclusively on a placement model as part of the Career Development program.

Recommendation No. 70—The State board for vocational education should design forms and criteria for the local schools to report and identify persons with special needs.

This has been done in the past and is still being done.

Recommendation No. 71—An advisory committee for special needs should be established by the State board for vocational education.

We do not have this at the State level. Local programs are using advisory committees. Ad hoc committees are planned to identify areas that can serve smaller schools.

Recommendation No. 72—The State board for vocational education should employ a State supervisor to develop, coordinate, and supervise special needs programs.

Do not have a full-time person at this time, Reuben Guenthner coordinates it now.

Recommendation No. 73—At least three new programs for persons with special needs should be established during fiscal year 1970, and two additional programs during fiscal year 1971.

In 1970 four new programs and in 1971 four new programs.

Recommendation No. 74—At least two new vocational programs for the handicapped should be started during fiscal year 1970.

In 1970 two programs were started at Fargo and Barnes County in Valley City.

Recommendation No. 75—Special emphasis should be given to programs for persons with special needs with particular emphasis on special staff, guidance, facilities, teaching methods and student identification.

Is being done. All programs are making efforts to serve many special needs (disadvantaged and handicapped) within regular programs.

Recommendation No. 76—Existing facilities, wherever possible, should be utilized for special needs programs and new facilities should be constructed where needed.

Existing facilities are being utilized primarily. Some building plans include special education facilties.

Recommendation No. 77—The State board for vocational education should provide courses both preservice and inservice for the training of vocational teachers in the area of the handicapped and disadvantaged students.

Preservice courses include discussion on identification—more emphasis is needed. Inservice—several workshops have been conducted —EPDA at NDSU. All-service conference last summer was devoted to better serving the disadvantaged.

Recommendation No. 78—Vocational educators should make known to all interested students the value of apprenticeship and the necessary pre-apprenticeship training which will enable them to improve their skills and livelihood in industry and establish awareness of the opportunities in apprenticeship programs for men and women and correlate to vocational training.

This is done through vocational guidance information and existing programs. Mr. DeSautel has been on several inservice programs.

OHIO

The 1971 annual report of the Ohio Advisory Council contained nine recommendations to the Ohio State Board of Education. Reactions of these recommendations, and action resulting from them, are contained in this section.

1970–71 Recommendation 1

The State board of education, through the division of vocational education, should continue its efforts to promote the adequate funding of the 30 plus joint vocational districts planned but not currently funded. The State division should assist these local schools in their local levy campaign to a greater extent than they have in the past. Funding for buildings and equipment costs should remain basically at the 50 percent level. The State legislature should provide the necessary matching funds for the continued operation and support of the vocational centers.

Council Report

This recommendation was partially implemented. Four additional joint vocational school districts have voted local funds for the establishment of physical facilities and equipment for vocational education. All of the remaining joint vocational school districts have tried and will continue to try to obtain necessary locally voted funds. There is no basis in Ohio for the establishment of facilities and equipment without locally voted dollars.

Situation as of July 1, 1972:	
Levies for facilities voted by local school districts which will require matching funds	$13, 512, 566
These facilities would serve 7,111 high school students and 10,677 adults.	
Available funds for matching:	
Bond issue No. 1	377, 031
Anticipated Federal vocational funds	4, 500, 000
Total	4, 877, 031
Additional matching money needed to match local funds already voted	8, 635, 535
Additional State matching money needed by July 1, 1973 if programs as planned are approved by voters	44, 439, 570

Recommendation 2

Large city operational funding for vocational education should be the same as in other sections of Ohio. The State division of vocational education should continue experimental, flexible programs within large cities to better serve the needs of inner-city youth and adults.

Council Report

This recommendation was implemented through the recommendation to the legislature made by the State board of education and action of the legislature to change the foundation program. Under the provisions of the new foundation program, major cities will receive the same allocation for vocational units as provided to suburban and rural areas. Efforts have been continued by the Division of Vocational Education to assist the major cities to better serve the needs of the inner-city youth and adults. A series of planning meetings was held with representatives from major cities responsible for such planning and a planning guide was developed.

Followup visits have been made by the assistant director for special needs in the division to each of the major cities to assist them to implement the planning model.

Recommendation 3

The division of vocational education should move forward as rapidly as possible to implement an elementary school program on work motivation and career exploration: the junior high program on work exploration: and the senior high program of vocational preparation as contained in the objectives of the State department of education, to be attained by 1975.

Council Report

The division of vocational education has continued to expand the career motivation, orientation and exploration programs in accordance with the objectives established. Growth, however, has not been as rapid as projected by the time line in the objectives, since the legislature did not appropriate the amount of funds requested for this activity and federal funds have not been increased in accordance with the massive publicity given to career education. Persons served through these programs have increased from 26,000 to 39,000 between fiscal year 1971 and fiscal year 1972 and will increase to 108,000 in fiscal year 1973 on the basis of the amount of funds provided by the State legislature for the expansion of this program.

Recommendation 4

The State superintendent of public instruction should encourage the division of teacher certification to give serious consideration to certifying vocational guidance counselors on the basis of work experience in place of some education requirements enabling them to provide more realistic guidance to high school youth, with emphasis on career selection.

Council Report

In order to implement recommendation No. 4, it is necessary to change the teacher certification requirements for vocational guidance counselors.

The certification requirements were revised in 1970. It has been the policy of the State board of education to make periodic revisions of the certification requirements on 5- and 10-year intervals, therefore the recommendation was not implemented at this time.

Recommendation 5

The division of vocational education should immediately embark on an extensive public information program to improve the image of vocational education to the citizens of Ohio. Sufficient funds should be made available to employ a staff for this purpose.

Council Report

The implementation of this recommendation remains a constant responsibility of all people involved in education in the State of Ohio. This includes not only the division of education, the advisory council for education, but all local educators. Every effort is being made to improve the image of vocational education and great strides have been made over the past 8 years. Attitudes are relative and the council can see continual improvement. A person has been added to the staff of the division of vocational education to give full-time attention to the improvement of the public information program.

Recommendation 6

The division of vocational education and the Ohio Advisory Council should immediately form a joint task force to study the feasibility of contracted services related to vocational education and make recommendations for the consideration by the council.

Council Report

The Legislature of Ohio has made provisions for a local school to contract for vocational services with proprietary schools for those vocational education services not made available by the public school. Such contracting authority is permissive, not mandatory.

Recommendation 7

The state superintendent of public instruction should request leaders of the Ohio General Assembly to create a special legislative commission to study in detail problems existing between such groups as State licensing boards, professional associations, and vocational educators. Evidence seems to indicate that some of the problems inhibit the effort to assist students in preparing for career objectives.

Council Report

The commission on vocational and technical education (Arnoff, chairman) was made aware of this recommendation but no legislative action was taken by the 109th General Assembly. The matter is still open for further consideration.

House bill 1083 was introduced into the legislature with support of the State department of education. The purpose of this bill is to limit the authority of regulatory boards governing licensed occupations with respect to the age and educational status of youth enrolled in programs to prepare for licensing. This bill was heard by a committee and recommended for passage in the House of Representatives. The bill is in the Rules Committee of the House at the present time.

Recommendation 8

The division of vocational education should assist in providing specialized facilities, equipment and staff for the training of out-of-school youth and adults. The council recommends that full-time leadership for adult education be provided at the State and local levels. If necessary, additional funds should be secured.

Council Report

A full-time person has been assigned to encourage increased attention toward adult vocational education on the part of the staff members in the individual occupational services at the state level and to encourage increased efforts in adult vocational education within the local vocational education programs. No plans have been made, however, for separate facilities for adult vocational education except through the manpower training centers established in five of the major cities.

Recommendation 9

The division of vocational education should not only encourage, but insist that local administrators of vocational education make more extensive use of local advisory and local craft committees. The council recommends that at least one individual on the state staff be assigned this responsibility on a full-time basis.

Council Report

Representatives of the division of vocational education have continued to encourage effective use of advisory committees by local administrators of vocational education. A review of the effective use of advisory committees is included in the program review for improvement, development and expansion of vocational education as implemented under the requirements of the Vocational Education Amendments of 1963. The division of vocational education does require the establishment of advisory committees before the approval of any new program.

OKLAHOMA

A. 1971 Recommendations and Reaction

1. *Proficiency Ratings.*—That standard tests be given all vocational and technical occupational course graduates, which would rate proficiency level of individuals in a particular skill in key areas of specialization, and place this information on a plastic, wallet-size card with social security number to prevent any unauthorized reproduction. The rating system, devised in consultation with advisory committees drawn from the proper occupations, trades, and organized labor, should equate an individual's skill level with his peers in secondary, postsecondary, adult, MDTA, or special training.

Reaction to No. 1.—We believe strongly in profiicency testing of graduates, specifically in trade and industrial education areas. We believe that instructors in the field of cosmetology, aero mechanics, practical nursing, and associate degree nursing have done an outstanding job, possibly because their students must pass examinations in order to be licensed or certified in their field. In each of those examples, course objectives are clearly defined and curriculum materials revised constantly to enable students to obtain the most recent developments.

Over a period of time, proficiency testing might be introduced into all occupational areas. This would require that all programs of like kind be equipped with appropriate instructional devices, training aids, basic equipment, and curriculum materials. We do feel, though, that a word of caution should be expressed. Our instructors should not teach for the proficiency examination only and, therefore, fail to cover some more broad aspects of the program. Such a proficiency testing program must be developed over a long period because it requires much planning and research.

In general, we support No. 1 to the extent that proficiency testing be explored and expanded. There are many variables. While it is possible to say on a proficiency card that a welding trainee has passed an AWS test and a typist can type 80 words per minute, as proven on an examination, we think it would be very difficult to give an accurate and meaningful total proficiency rating on a trainee. After all, test results indicate proficiency only at the time of testing.

2. *Duplicate mechanics programs.*—That the board work with both sending districts for area schools, and local districts, to reduce duplication of auto mechanics programs through the reimbursement process. The council further recommends that the board encourage a consolidation of equipment and/or funds for equipment, to provide better basic facilities and equipment for specialization in the cluster of automotive related services, to the end that more course graduates will be employable. In addition, the council recommends training priority for those who are, at least initially, interested in part of the automotive cluster program as a career and not merely a hobby.

Reaction to No. 2.—We admit readily that duplication is not basically sound. Whenever practical, we try to eliminate programs in the comprehensive schools when an area school goes in and offers a similar program. When a comprehensive school superintendent asks why he should not continue his program, but transport students to an area school for training when there is a full enrollment at his school, we have difficulty providing a good answer. Where the enrollment is low, we do not hesitate to recommend that a program be closed.

We also make recommendation for closing the program when facilities are poor and teachers appear to be weak. The current evaluation program will assist us in eliminating such programs. Several programs have closed since the area vocational-technical schools came into being. Not all programs in comprehensive high schools within area districts have closed. We do not feel that all should close, because many area vo-tech school administrators have the attitude that their schools and programs are for those schools that cannot afford similar programs of their own, or where the comprehensive school superintendents feel that the new vo-tech schools can do a better job of training students.

We do feel that in certain area schools, or certain large city schools, it might be desirable to cluster the training of automotive mechanics and, therefore, allow a greater level of specialization. Specialization at the high school level is not always practical because of uncertainty over the final goal of young people involved, and the fact that they may not be completely committed to becoming an auto mechanic.

The advisory council and the board are aware of the comprehensive specialization program in automotive mechanics available at Oklahoma State Tech, Okmulgee. We feel also that a recommendation of the director of the Oklahoma City vo tech education programs, for consolidating all auto mechanics programs in the district into one location, might be feasible. We would want additional study before making a recommendation on this proposal.

We are doing more each year to screen out the student who takes automotive mechanics training as a hobby. Both instructors of the programs and local school counselors are involved in the screening process and hope to screen in only those students who really intend to practice the vocation of automotive mechanics. We realize that this is not always possible and that the goals of people change regarding what career they want to follow.

3. *Apprenticeship credit.*—That more intensive effort be made to secure agreements with organized labor to accept mutually agreeable levels of vocational occupational craft training, after proficiency tests, as a portion of apprenticeship requirements for craft unions.

Reaction to No. 3.—We feel that obtaining a written agreement with organized labor is a very difficult assignment since all the principal trades are administered through local union offices. Local union administrators are very cautious about putting anything in writing because it could point up a deficiency in their apprenticeship recruitment program. To this date, the T & I Division of the State department has had excellent results, with no fanfare, in placing the most apt students in trades and crafts.

From experience, we have found that local unions would much rather deal with vo-tech graduates on an individual basis than offer a blanket statement that would enable each to qualify. We would prefer that Roy Ayres, State supervisor of trade and industrial education, make a personal report to the advisory council on success achieved in getting the vo-tech graduates admitted with credit to apprenticeship training programs.

Many of the T & I graduates, some under 20 years of age, are now carrying bona fide union cards as journeymen. This speaks well for the training these young men have received from their high school courses.

4. *Vocational Graduate Follow-up Study.*—More effort should be made to increase the number of graduates of vo-tech training programs who enter the labor force.

a. Greater emphasis should be given to selection of students who are in the greatest need of training for employment: counseling of graduates should be toward employment, or further education, related to the vocational education program which they have just completed.

b. Greater emphasis should be placed on the establishment of placement procedures for graduates of vocational and technical programs. A more comprehensive followup on specific program types should be considered carefully when expanding or reducing programs in the future.

Reaction to No. 4.—The followup study of vocational-technical education graduates, which was partially supported by the advisory council, and conducted by the division of research, planning, and evaluation of the State department, yielded some recommendations which were directed at improvement of the effectiveness of training programs. The State department, as a result of this study and recommendations made by the advisory council, included placement as one of the principal objectives for the coming fiscal year.

Overall objectives of the State department which relate to followup and placement of students are stated as follows:

1. To increase the number of persons available for placement after completing training by 5 percent for each division except health which, because of its already high placement rate, will increase the number of persons available for placement by 1 percent in fiscal year 1973.

2. To provide 50 percent of the completing area vocational and technical school and junior college students, and 25 percent of the completing comprehensive high school students, with placement information and services in fiscal year 1973.

These two objectives have been accepted as a part of the management by objectives system for the State department, and will stimulate increased emphasis on placement, which is necessary to assure an increased placement on the job for each of the programs in vocational and technical education. Also, the State Department, in response to other recommendations of the advisory council, has recommended that emphasis be placed in the area of recruitment of college dropouts. This objective by the State Department is:

1. To identify and recruit 10 percent of the college dropouts into post-secondary vocational and technical education programs in fiscal year 1973.

While the percentage of high school graduates does reflect a high placement (70 percent) of those graduates available for employment, the greatest probability of increasing the number of persons trained and placed on jobs, is to increase the percentage available for work.

The strong training programs which are reflected by the low unemployment rate among vocational graduates (approximately 6 percent) does demonstrate vividly that vocational and technical graduates and school leavers do obtain employment. This figure is especially significant when compared to the high percentage (18 percent) which is the unemployment situation for those students who have not received vocational and technical training.

5. *Teacher Supply and Demand.*—The council wishes to concur in recommendations made pursuant to findings in a study just completed on secondary and postsecondary programs, under direction of the division of research, planning, and evaluation, titled, "The Demand for and Supply of Vocational and Technical Teachers in Oklahoma, 1972–76," for the seven major program areas. Highlights follow:

Recommendation for Vocational Agriculture.—That (a) teacher training at Oklahoma State University be maintained at its present rate and (b) the teacher training program at Oklahoma State University further redirect its efforts toward training teachers for off-farm agricultural programs.

Reaction for Vocational Agriculture.—That agriculture redirect its efforts toward training in off-farm agricultural occupations is reflected in objectives of the State Department, which recommends a 5 percent redirection annually of programs in vocational agriculture, toward training in agricultural related occupations.

Recommendation for Distributive Education.—That a new undergraduate program be established at Oklahoma State University in the next 5 years and that teacher training at Central State University be maintained.

Reaction for Distributive Education.—While the supply of distributive education teachers is not adequate to meet demand, expanded training of teachers is being encouraged at Oklahoma State University; and consideration is being given to expansion of the program at Central State Uiversity.

Recommendation for Health Occupations Education.—That the program at Central State University be expanded rapidly, or that one institution in addition to Central be assigned the responsibility for training health teachers immediately. Additionally, it is recommended that provisions be made to admit associate degree graduates in health programs into teacher training without significant loss of credit hours.

Reaction for Health Occupations.—The most serious shortage shown in the report and in recommendations of the council is in health occupations. A new program has been initiated at Central State for training health teachers. This is just getting into operation. The increase in number of teachers and expanded training of present teachers should begin to show a significant effect soon. This is one of the top priority items of the personnel development effort of the State Department.

Recommendation for Home Economics Education.—Include (a) increasing enrollment in teacher training programs at Oklahoma State University, Oklahoma University, Langston University, and Oklahoma College of Liberal Arts, or increasing the percent of graduates entering teaching by approximately 15 percent, and (b) effecting a further shift in the emphasis of teacher training programs toward preparation of teachers for gainful employment instruction.

Reaction for Home Economics.—Programs of home economics teacher education, while providing only 70 percent of teachers needed in home economics, are maintaining levels of enrollment. It is felt that teachers reentering the occupation after a period of absence will help to supplement the supply.

Recommendation for Business and Office Education.—That teacher training in business and office be maintained at the present rate.

Reaction for Business and Office.—Our data indicates there is an over production of business and office education teachers. However, many of these graduates go into nonvocational teaching positions. It is the position of the State Department that the level of training be maintained.

Recommendation for Technical Education.—That teacher training at Oklahoma State University be maintained at its present rate and that the feasibility of establishing new teacher training programs in an urban center such as Oklahoma City be determined.

Reaction for Technical.—The technical education program at Oklahoma State University is being encouraged to expand its enrollment, and the possibility of using other institutions for training is being studied.

Recommendation for Trade and Industrial Education.—(a) That at least one additional teacher training program be established for trade and industrial teachers, and (b) that any additional teacher training programs be established in conjunction with an area school or Oklahoma State Tech at Okmulgee.

Reaction for Trade and Industrial.—While most teachers in trade and industrial education are coming directly from industry, special programs are being initiated to expedite and expand the training of such teachers. A special project funded through EPDA did provide for a summer workshop for individuals going into area vocational-technical schools who have never taught before. This is a 4-week workshop. Professional teacher trainers are continuing to work with new T & I teachers who were in the workshop to assist them in adjusting to a classroom situation.

The State Department is following closely the data supplied by the teacher demand and supply report, and which is reflected in recommendations of the council. Further study and recommendations of the professional personnel development programs may more effectively meet the needs of vocational and teachnical education in the future.

6. *Teacher Training in Adult Education.*—That a study be made on the need for teacher training in adult education, by the State Department, or in conjunction with the State department of education.

Reaction to No. 6.—We agree with the council recommendation that there is a need for a study. This is becoming increasingly important in view of recent emphasis on cradle to the grave career education as proposed by Commissioner Marland. Recent reports, less time, more options, the Newman report, new students and new places, also have indicated a need for continuing in adult education.

The State Vo-Tech Department and other agencies are engaged in several studies that may lead to recommendations for implementation regarding teachers' training for instructors of adults. These are: (1) a complete study of all phases of existing vocational and technical adult education, being conducted by Bill Collins, under the direction of Dr. Charles Hopkins and Harold Winburn; (2) Bob Brown, Miss Blanche Portwood, and Bill Phillips of the State Department staff are developing an 8-hour training program for new teachers of adult programs. They are also preparing an adult education guidebook, developed as a directory of the summer 1971 workshop on adult education; (3) the U.S. Office of Education has funded, through the University of Oklahoma, Norman, a preservice and inservice adult teacher education program; (4) Wayman Penner, presently an intern in the State department, is doing a study of characteristics of teachers of adult education T & I programs. The study will have direct bearing on curriculum development for adult education teacher training.

With completion of these studies, more adequate information should be available upon which a proposed teacher education program for teachers of adults should be established.

7. *Training of guidance and counseling personnel.*—That continued emphasis be placed upon training of guidance and counseling personnel with a top priority assigned to such endeavor.

Reaction to No. 7.—If one had followed activities of the State department over the last 6 months, increased emphasis placed on guidance and counseling by the department could have been seen easily. The VIEW project, headed by Les Miller, and the Mobile guidance career development labs, headed by Ross Stivers, are proof of emphasis that the board and department are placing on guidance and counseling. In the State plan, priorities 4 and 5, are concerned with improvement of guidance and counseling through preservice and inservice training of counselors, and in the development of new or improved techniques. It is anticipated that at least one EPDA funded project for the coming year will be designed to improve the training of guidance and counseling personnel.

The State department is not satisfied with the reaction of counselor-educators to its recommendations that training of counselors and guidance personnel for the high schools be changed to reflect greater background in occupational areas, vocational and technical education, job opportunities, placement, etc. The council is well aware of the way recommendations have been received, and they, too, have met with teacher-educators from the guidance and counseling training staff of the various colleges and universities within the State.

It may be necessary that more drastic steps be taken in order to get the attention of counselor-educators. The State department is studying additional recommendations to bring greater emphasis to the need for change in the training of guidance and counseling personnel. It is expected that the department staff will make recommendations to the board and to the council within the next 3 to 4 months.

B. Past Recommendations

1. On recommendations where action is possible and feasible but not of immediate accomplishment, the council makes periodic progress checks. Some are reiterated for effect (such as inadequacy of counselors) with the knowledge that this is more of a local than departmental problem.

2. In its 1970 report the council recommended that joint studies be made by various boards affected toward conversion of an existing institution to a residential vocational-technical school. The 1971 legislature provided for such a potential change at Murray State College, a former 2-year A & M school under that board of regents. The board of regents for higher education decreed a change of function at Murray, to make it a vocational school, and was upheld by the State supreme court.

3. Among 1970 council recommendations was one advocating a training program for a category of guidance technicians at less than degree level, specializing in the "World of Work," to help relieve the chronic shortage of counselor and guidance personnel.

The State department's reaction was that, while it had an interest in training such people at less than professional degree level, this must originate from public schools requesting a program to provide a counselor aide or guidance technician. Little progress has been made but emphasis was promised.

The national advisory council, in its sixth report, June 1, 1972, calling for change in guidance and counseling, included under "What Must Be Done": "Decisionmakers in education make extensive provision for the training and employment of a wide variety of paraprofessional personnel to work in guidance under supervision of professionally qualified counselors."

4. Action was taken, completed or underway, on all other 1970 recommendations, in addition to the above 1971 resume.

Recommendations

The board should expect and achieve more active cooperation involving Oregon State University, Oregon Technical Institute, and the community colleges in Oregon in the training of career education teachers (preservice and inservice).

The board should encourage the designation and development of a university in the Portland metropolitan area as a center for teacher training including the areas of business and office education, health occupations education, and distributive education.

The board should assume leadership in planning and activating a program of inservice training for board members, administrators, guidance and counseling personnel at the elementary, secondary, and postsecondary levels to develop understanding and agreement upon an appropriate philosophy of education to meet the needs of today.

The board should take aggressive leadership action to precipitate massive involvement of business, industry, agriculture, labor and others in public school affairs to influence the nature of the curriculum to take a significant role in the instruction per se. This should include teacher education.

The board should develop special task forces in career education to pinpoint needs for career curriculum, development for the elementary junior high, senior high, and postsecondary levels.

The board should assign staff or contract with others to do the curriculum development most urgently needed as it is identified when the preceding recommendation is implemented on a priority basis.

The board should design and implement a plan to get every school district to assume official responsibility for developing employability in every student. This should include accountability to the local taxpayers and to the Oregon Board of Education.

The board should design and implement a program intended to get every secondary school to assume responsibility to work with appropriate agencies to bring about placement of every student who leaves high school whether by graduation or otherwise.

The board should preserve and enhance the current identity of career education programs and staff in all kinds of educational institutions and agencies and make the line of communication and authority from the director of career education (or whatever the administrative head of the department of career education is titled) to the superintendent (or whatever the administrative head of the institution or agency is titled) as direct and short as possible.

The board should assume the key leadership role in designing and promoting a research and development center for career education. The center should be an independent entity so situated that it will not be bound by the formal and informal limitations and traditions of existing instructional and supervisory programs.

The board should arrange for periodic, systematic, third-party evaluation of career education and teacher education.

The board should negotiate even more specific written agreements with the public schools, postsecondary education and any other institution to which it disburses funds. It should expect and receive an accounting on what was accomplished with funds received accordingly.

Counselor certification should be redesigned to serve today's career education needs. The establishment of guidance certification requirements should encompass the full range of career guidance services. It should acknowledge the variety of experiences required to properly serve in a guidance role, regardless of where or how these experiences are acquired. The process should also acknowledge the differing requirements of the following: Career Awareness (K–6); Career Exploration (7–10); Career Clusters (11–12); Career Specialization (13–14).

Training institutes and organizations should redesign their programs in accordance with new counselor certification requirements. The newly constructed programs should have as their primary goal the training of guidance personnel to a level of competency that will allow each to function effectively at his assigned level.

Oregon citizens should have access to a full range of career guidance and counseling services. Wherever possible, Oregon's schools (K–14) should house this service in order to serve the population in greatest need of the services. It is recognized that not all schools will have a staff large enough to provide the full ranges of services recommended. In this event, the Oregon Board of Education should recommend alternative plans to provide for these services.

Guidance personnel should adopt a procedure for the continuous evaluation of their service to others. Wherever possible, the process of evaluation should employ the concept of self-evaluation.

PENNSYLVANIA

Implementation of the 1970 Goals and Recommendations

A review of the 1970 evaluation study of vocational education in Pennsylvania indicates that good progress is being made in the implementation of the suggested goals and recommendations.

While increases in vocational enrollments in the several occupational fields is not large in numbers, the 1970–71 school year did reflect an overall increase of 5,579 enrollments or an increase over 1969–70 of 3.1 percent toward the State's long range goals. The opening of eight new secondary area vocational technical schools added 165 additional programs in the school year 1970–71 providing for 5,732 more students to be served. 1971–72 school year openings added another five area vocational technical schools providing for an additional 3,000 students.

Recommendations for the use of new teaching techniques and devices have received attention particularly in the field of television. A series of occupational information television tapes is now in its second year of production and will result in 21 different subject areas of coverage. Each of these is designed to be further amplification of interesting world of work information for vocational as well as academic students in need of career orientation and development. Educational television is also being utilized throughout the State to provide occupational information in the home environment.

Suggestions relating to an increase in the number of programs in certain occupational areas have been acted upon. Where decreases were suggested, additional study and consultation with program specialists was conducted by the bureau of vocational and technical education. New emphasis is being placed on off-farm agricultural occupational education to meet new demands evidenced in this field. Similar action is being taken in relation to programs in the occupational preparation courses in consumer education.

New emphasis is also being placed on providing additional vocational guidance and counseling services. Special programs approved during the 1970–71 and 1971–72 school years are increasing measurably the individualized vocational counseling services as well as group counseling for academic students who have vocational as well as academic interests. One such project is specially mentioned in the section relating to special projects.

While utilization of space capacities is still a difficult thing to manage, the VEMIS report of capacity utilization is a great help to local administrators and should assist in the balancing of student loads and more efficient use of facilities for more than one purpose.

The recommendation for more emphasis on school centered placement activities is receiving appropriate attention during the current school year and as a result increased employment of graduates in the field for which they were trained will be evidenced.

The recommendation for increased emphasis on disadvantaged, handicapped, and potential dropouts is also receiving attention as indicated in the special projects reports. Quite a number of such special services have been instituted under both part A (Disadvantaged) and part B (Disadvantaged and Handicapped) allocations since the recommendation was made. In this instance a member of the State staff has been assigned the full-time responsibility for promoting and handling programs designed for the disadvantaged.

At the postsecondary level some of the recommendations require legislative action in order to be implemented. However, in those instances where action could be taken, it appears that implementation is being started.

Recommendations made with regard to the organizational structure of the bureau and the relocation of the field offices have been completed where it was possible to do so. These relocations will result in better coordination between the intermediate unit administrators and the field consultants of the State staff.

In general terms, it appears that implementation of many of the goals and recommendations is advancing and that even greater positive results should begin to show up during the current school year.

RHODE ISLAND

In its December 1971, report the State advisory council made 17 recommendations to improve the planning, management, and delivery of vocational-technical education. To what degree were these recommendations followed?

Recommendation 1

A centralized, standardized, annual program—required of all public schools in Rhode Island—to survey and report on the status of all recent graduates and dropouts. Those who had graduated from vocational schools would be asked to report on their current employment status and to offer suggestions as to how vocational education might be improved. Dropouts would be asked the same questions and also would be offered a chance to enroll in one of several short-term training courses aimed at teaching a marketable skill.

Action Taken

A management information system for vocational-technical education is being developed by the State department of education with the aid of a management consulting firm. The system, when completed, will provide data on personnel (students, graduates, dropouts, and staff) programs, and facilities.

Recommendation 2

Development and continuation of the planned advertising outreach campaign aimed at reaching and serving persons who need vocational education or other manpower services.

Action Taken

The council expanded its public information effort during this reporting period. The television spot announcement campaign started in 1971, was continued and the number of public speaking engagements before community groups grew substantially.

Recommendation 3

Development of facilities, course offerings, and staff in anticipation of a large upsurge in the number of vocational education students in Rhode Island.

Action Taken

One new vocational-technical education facility was opened—the William M. Davies Vocational School in Lincoln. Programs were developed and appropriate staff retained. The Warwick campus of Rhode Island Junior College and an area secondary school facility, also in Warwick, were scheduled to open in September 1972. The State board of regents approved $6,200,000 in funds for new construction and expansion of present facilities. Projected demand for vocational education, however, causes uncertainty over whether current or even planned vocational education facilities can serve those interested in this kind of education.

Recommendation 4

Greater efforts to promote real coordination of all manpower agencies and programs in Rhode Island, backed by the State administration and the legislature, supported if necessary by State legislation.

Action Taken

Most manpower development in the State, including vocational education continues to take place in fragmented fashion. Interagency cooperation, e.g., the State department of education and employment security, and coordinating bodies such as the comprehensive area manpower planning system, CAMPS, do exist; but various manpower development agencies are not yet compelled by law or public and private pressure to integrate their training efforts.

Recommendation 5

The filling of all open staff positions in the State division of vocational education.

Action Taken

Reorganization of the Rhode Island Department of Education continued during fiscal year 1972. The division of vocational education—formerly headed by an associate commisioner of education—was eliminated, and its personnel, programs, and functions were placed as an office in the division of academic services. Within the new structure, however, most staff positions were filled.

Recommendation 6

A study of vocational staff salaries, with upward revision where necessary, to put Rhode Island in a more competitive position to secure and retain qualified staff.

Action Taken

Professional salaries throughout the department of education were upgraded to a more competitive level.

Recommendation 7

Adoption of a clear definition of the term disadvantaged to insure that programs for the disadvantaged really reach those who are at the bottom of the economic ladder.

Action Taken

In regard to allocation of vocational education funds, the State department of education has not yet defined disadvantaged in terms of low income or minority group status.

Recommendation 8

The hiring of several contact persons to act as liaison with members of the minority community, in an effort to recruit more nonwhites into vocational training programs. (This measure has been recommended in annual reports by the vocational education division for the past 2 years.)

Action Taken

A staff member of the department's vocational education unit was designated as a contact person for populations that could be served by programs for the disadvantaged and the handicapped.

Recommendation 9

An active campaign to recruit more black administrators, teachers and teacher interns for positions in the vocational education division.

Action Taken

The department publicized staff openings but was not able to recruit black administrators, teachers or teacher interns.

Recommendation 10

More special vocational education programs in parts of the State where disadvantaged persons are congregated.

12-6

Action Taken

Approximately 70 percent of disadvantaged persons enrolled in vocational education programs in fiscal 1972, were from the central cities where the highest percentage of that population is located. There was an increase of about 300 students, in such programs as compared with the previous year.

Recommendation 11

More vocationally oriented training programs for inmates of the adult correctional institutions.

Action Taken

There was no significant increase in the number of vocationally-oriented training programs being offered at the adult correctional institution.

Recommendation 12

More out-of-school training programs in outlying parts of the State.

Action Taken

There is no evidence of any increase in such programs in outlying areas of the State.

Recommendation 13

More prevocational or mini-courses offered as an introduction to high school vocational education.

Action Taken

An exemplary program in career education was funded and began operation in the East Providence school system in September 1972. One phase of this program provides career exploration experiences for youngsters in grades 6 through 9.

Recommendation 14

Development of an introductory career education program, providing general information about the world of work in classes as early as kindergarten, in every public school in the State.

Action Taken

A pilot K–12 career education program was funded in the East Providence school system. But structured career awereness and orientation efforts do not yet exist in every elementary school throughout the State.

Recommendation 15

More training programs, possibly offered in the evening or on weekends, for adults now working at poor-paying and unsatisfying jobs.

Action Taken

There was an increase of 421 adults enrolled in preparatory, supplemental, and apprenticeship training. The objectives were skill retention, career advancement, and labor market entry.

Recommendation 16

More short-term vocational education programs for school dropouts, and development of an aggressive outreach campaign to reach dropouts.

Action Taken

Many of the projects funded to serve the disadvantaged in fiscal 1972 were aimed at preventing dropouts.

Recommendation 17

A thorough review of current regulations and practices concerning certification of vocational-technical teachers, with a view toward eliminating those requirements that have become outdated or have proved to be an obstacle in obtaining the most skilled and qualified teachers.

Action Taken

Department of education staff are studying performance based teacher certification. This approach provides that prospective and present teachers be evaluated primarily through a demonstration of career field knowledge and teaching skill. The expected outcome of this study will be recommended changes in State certification standards.

SOUTH CAROLINA

Consideration of Recommendations

The evaluation report of the Advisory Council in 1971 was directed to and formally presented to two State agencies: The State board of education, which is the State board for vocational education, and the State committee for technical education, now known as the State board for technical and comprehensive education. The Council was very pleased by the manner and attitude with which the recommendations were received. In January of 1972, the State board of education issued a publication entitled, "Official Reaction to the Annual Report of the South Carolina Advisory Council on Vocational Education," which had been prepared by the office of vocational education. The office of vocational education and the State board of education are to be commended for this action. Consisting of a two-part reaction to the recommendations of the Advisory Council report, this publication encouragingly demonstrated to the Council that the recommendations had been given due consideration.

In the report, first the staff of the office of vocational education responsed to each of the main recommendations, followed by a section which contained a reaction by an ad hoc committee. The office of vocational education, on their initiative, named a committee consisting of two school superintendents, two area vocational center directors, and one county supervisor of vocational education who were assigned to react to the recommendations. This apprach, the Council believes, gives adequate visibility to the evaluation report and stands as evidence that each of the recommendations have been appropriately considered. Several of these recommendations have since been incorporated as procedural matters by the office of vocational education.

The staff of the State committee for technical education was not as formal in its consideration of the evaluation report and the recommendations which applied specifically to that organization. The Council is inclined to believe, however, that each of the recommendations did receive adequate consideration. Correspondence between the administrative office of the technical education system and the executive director of the Advisory Council provide indications that the Advisory Council recommendations have been repeatedly considered throughout the year. It is believed that the administrators for vocational education and for technical education were sincere in their efforts to incorporate the recommendations to the greatest extent possible.

Tangible progress has been in most of the recommended areas. One of the more notable changes made by the office of vocational education was the change in the base year used to calculate local allocations as recommended in the 1971 report as recommendation number seven. The only recommendations from which the Advisory Council has not yet seen evidence of deliberate progress are the following:

Recommendation No.	Summarized	Notation
3b	District meetings for articulation purposes.	Encouraged by both agencies; not a regular practice.
3c	Vocational Education Office supply TEC with local lists of terminal year vocational students.	Not known to be a matter of practice.
5	Study to assess need for upgrading of VOC TEC administrative personnel with a graduate program.	Action initiated by Clemson University; supported in principle by both agencies as of the end of fiscal year 1972.
9	Vigorous support for local advisory committees.	No apparent change in policies or practices.

Far more has been acomplished than not during the past year. Some of the tasks which remain to be accomplished result from insufficient staffing, the lack of financial resources, or were beyond the administrative authority of the various State agencies. In one instance, it is thought that the interpretation did not agree with the original intent of the Advisory Council. General followthrough on the recommendations is being made through constant contact with the directors and staff of each of the agencies. The Council is encouraged by the progress during the past year, and anticipates that fiscal year 1973 will show similar and even greater progress in these programs which are vital to the youth and the adults of South Carolina.

Followthrough

Closer coordination between the Advisory Council and the offices of vocational education and of technical education is being maintained than ever before. The Council invites and encourages the director of vocational education and the executive director of technical education to meet with the Advisory Council at each of its scheduled meetings. This affords an opportunity for a presentation from each office, and questions regarding action on any of the expressed recommendations may be posed by members at any time.

The reaction provided by the office of vocational education on behalf of the State board of education (State board for vocational education) has assured that adequate attention was given to each of the recommendations. Second and mandatory focus comes with the submission of the succeeding year's State plan. According to the rules and regulations, part 102.150(b) as amended and published in the Federal Register, Volume 37, Number 27, this requires a second consideration of the recommendations and the response in writing to each of the recommendations.

In an effort to promote closer and more harmonious working conditions between the Advisory Council and the vocational education and technical education offices, the office of the Advisory Council was moved to Columbia at the close of the fiscal year 1972. This provides the Council with an office location which is within easy walking distance of the State office building in which vocational education and technical education are housed. This should promote more frequent and effective communication between the Council and the administrative agencies.

SOUTH DAKOTA

1971 Advisory Council Recommendations

Elementary and Secondary Levels

Develop a career education concept at the elementary and junior high levels.

Analyze the effectiveness of the multidistrict concept now in existence.

Vocational guidance and job placement services should be strengthened.

Postsecondary Levels

An intensive study be made of future job opportunities and future labor demands for technically trained personnel so that course offerings and programs can be designed to meet the occupational needs.

Maintain well-balanced course offerings to meet the needs of both urban and rural students.

New course offerings and programs be greatly expanded to meet the technological advancements which require new levels of skill proficiencies.

Teacher education programs must be strengthened for pre-service as well as in-service.

That vocational education be designed, at both the secondary and postsecondary levels, to provide for the disadvantaged and handicapped persons.

Advisory Council

Improve by better coordination the efforts of the State advisory council with other agencies.

Develop a close working relationship with the State board of vocational education.

Should continue their efforts of disseminating public information and promotional activities so as to improve the "image" of vocational education.

Become more active in the legislative process.

Have a greater diversification of personnel on the council.

Be fully funded under the provisions of Public Law 90-576, Vocational Amendments of 1968.

There is considerable evidence that the State board and the division of vocational education did give more than just polite attention to last year's advisory council recommendations.

At the public hearing held at the State capital in regard to the legislative research council position papers the State director of vocational education depicted the State board's support for the "integration of vocational education in a total career education system. It was pointed out that beginning with career awareness, one can move through orientation, exploration, basic training, technical and professional education, into the world of work as the outcome of such a system. The advantages are many, but most important is meaningful and relevant education for all."

There have been initiated several partial programs with a "world of work" core, but no State funds have been available for vocational programs at the elementary level. However, under part D of Public Law 90-576, one independent school district is conducting a full-fledged exemplary project in vocational education involving the grades K through 12 called, "Career Development and Bridging the Gap Between School and Work." Eight elementary schools are included in the project.

It would be premature to outcome-evaluate this on-going program at this time, but progress evaluation results appear to be positive.

Another interesting concept presently under trial in the State is the "multi-district concept" which could revolutionize vocational education at the secondary level. Under Part D of the Vocational Education Amendments of 1968, the State board in 1971 approved 100 percent Federal exemplary program funding to establish a vocational center that presently serves 12 high schools in nine school districts in northeast South Dakota. These schools bus their students to the vocational center for 2-hour blocks of vocational instruction from distances as far as 35 miles. The multi-district concept has generated much enthusiasm in South Dakota by the thought that a number of schools districts, cooperating together, could fund much needed programs in vocational education at the secondary level that would be out of reach of a single school district acting alone.

During fiscal year 1972, the State board of vocational education by contract with the business research bureau, the University of South Dakota, released two publications intended to create occupational awareness among young people and to facilitate the occupational counseling endeavors of guidance counselors, parents, and teachers. The first of these, titled "Apprenticeship-Career Training With A Future" was a 29 page bulletin designed to introduce the reader to the modern world of apprenticeship and was prepared as a cooperative effort with the Bureau of Apprenticeship and Training, U.S. Department of Labor. The second publication was a 100 page digest of job description and characteristics titled "Occupational Information Handbook." Testimonials received from both within and without the State attest to the value of these publications as instruments of enlightenment to all.

As previously mentioned, the State board has taken steps via contract research, to obtain manpower needs and job opportunity data on a continuing basis. The board has exhibited an awareness of the need to adjust curriculum to meet the dynamics of today's technologically oriented world and have initiated new programs as needs have been identified and resources have become available.

The State advisory council did make some gains on its recommendations for itself in fiscal year 1972, but there is room for additional improvement. Coordination with other manpower using and serving agencies was improved, especially with the industrial development expansion agency. There was better communication between the State advisory council and the State board of vocational education, but this area needs strengthening so that the advisory council can be of greater assistance to the State board.

The advisory council did achieve considerable success in its dissemination of information to the people of South Dakota regarding vocational education. A high quality slide presentation was created dealing with the vocational education opportunities at the area vocational-technical schools. This program has been presented at many meetings and has received considerable acclamation. The advisory council also used TV and radio spots to inform the public during the year.

The advisory council's principal contributions to the legislative process were encompassed in its dissemination of information efforts. However, it is hoped that the position paper prepared for the legislative research council and the six public hearings sponsored jointly by the industrial development expansion agency and the State advisory council will prove valuable to the 48th session of the South Dakota legislature.

TENNESSEE

Previous Findings and/or Conclusions

Recommendation

The council recommends that the users of skills for which training is designed be involved to a greater extent in identifying the skills and quantities to be sought in program planning.

Response

Activities in compliance with the recommendation include:

a. Contacting 1,000 business and industrial establishments in the State to determine employment opportunities, labor supply and demand.

b. Approximately 250 business and industrial personnel were involved in the development of an articulated business and office occupations curriculum.

c. One hundred and fifty representatives of business and industry assisted in the initial phases of a similar curriculum project in the automotive services area.

Recommendation

The council strongly recommends that more attention be given to developing appropriate programs for elementary students which provide the opportunity to learn the world of work and have "hands on" experiences with occupational skills. Such programs should be carefully evaluated with wide sharing of information concerning successes and weaknesses.

Response

Two projects were planned and all necessary arrangements made in 1972 for implementation in fiscal 73. These include Clinton and Maryville, K through 6, for the first year. They will be expanded to include middle school the second year and high school the third year. Elementary students will advance progressively through elementary, junior high, and high school. It is estimated that 3,311 elementary students will be involved in these two projects.

Recommendation

The council recommends that coordination of effort and articulation at all levels be increased among secondary, postsecondary and adult education agencies to avoid costly duplication of programs and to permit intelligent study and consideration of the direction vocational-technical education is taking in terms of where it should be headed. This framework should allow for: (a) flexibility necessary to recognize differences in local situations, (b) full recognition of the expanded programs in technical education at all levels of operation, (c) initiative to attempt new approaches with new linkages.

Response

A statewide conference on management by objectives was conducted to explore and set forth objectives for the total program of vocational-technical education. Personnel from local schools, area vocational-technical schools, technical institutes, community colleges, State staff of vocational education, and representatives of the universities participated in the conference. Followup conferences were conducted. Planned projects included holding similar conferences and activities during the fiscal year 1973.

The development of curriculum material involving several services was pursued during the year which involved ED institutions from the junior high level through the university in order to insure an articulated program eliminating duplication of efforts among the various levels of vocational-technical education. During the reporting period, progress was made at all levels through cooperative planning for programs that serve the needs of the people. There is evidence that new approaches are being pursued and planned to determine better ways of training for occupational entry. Joint activities by secondary and post-secondary personnel in planning, evaluation, and curriculum development are providing the means by which a unified program will reach fruition.

While all staff levels are charged with efforts to comply with recommendation No. 3, the primary responsibiilty is placed on the field services staff.

Recommendation

The council recognizes the need for and encourages the development of more sophisticated system for gathering valid and usable program statistics and data for use in program planning and outcome studies with reference to completions, placement, and employment retention.

Response

A system has been developed by the research coordinating unit which provides valid enrollment and followup data on all secondary students enrolled in vocational-technical education programs. The system is sophisticated in that it uses primary sources for data input and utilizes electronic data processing techniques to obtain system outputs.

A similar system is being conducted by the area vocational-technical school section with the exception that parts of the process are being done manually rather than data processing.

Plans are being developed to apply a similar system to technical institutes and community colleges technology programs.

Recommendation

Efforts should be continued to broaden the base of program offerings available to students. Although progress is indicated programs should be identified with actual job opportunities of anticipated job placement.

Response

The process of local planning is bringing about an awareness to local school officials that job opportunities and training programs must be compatible. The data required in local plan applications demands an involvement by local businessmen, industrialists, labor representatives, lay people, educators, agriculturists, and others. This type of resource is most valuable in planning local programs to meet employment needs of the community being served.

Recommendation

Strong emphasis should be placed on developing new programs specifically for the disadvantaged without consideration for redirecting existing programs that serve the general vocational student population.

Response

Emphasis continues to be placed on the development of vocational basic education remedial programs for those disadvantaged students enrolled in vocational education and having need for this type service. The purpose is to supplement the students' ability to insure progress and success toward his vocational objective. Skill centers including complete programs for the disadvantaged are being added in locations having facilities, local supervision, and financial support available.

Recommendation

Continued experimental effort should be directed to a more equitable time block of effective instruction in secondary with dissemination of positive and negative effects to other school systems.

Response

The time block has received a considerable amount of attention during the past fiscal year. There are several experimental time block combinations being undertaken at the present time in various systems. The results of these programs will be evaluated and given consideration for future use on a wide scale.

Recommendation

The council recommends the establishment of a more comprehensive evaluation plan to evaluate programs on the basis of quality and process along with the product and that the plan be implemented at the earliest feasible date.

Response

The program planning and evaluation section is currently in process of developing a new approach to evaluate programs of instruction at all levels. A procedure guide is being developed along with criteria that is more comprehensive and more meaningful.

Recommendation

The council strongly recommends that substantial funds be provided for industrial training not only to serve the present needs of industry but to develop consumers of the skills and talents of vocational students as they enter into the world of work.

Response

The 1972 legislature appropriated funds for a special section of industrial training within the division of vocational-technical education. This section is to serve industrial training needs. These were defined as training new employees for new industries coming to Tennessee, training new employees for expanding industries, and supplementary training for employees who wish to gain stability or advance in their occupation.

Plans were developed in 1972 to employ a chief of industrial training, along with an assistant chief and clerical help. The division has contracted with a consulting company who has had experience in establishing such programs in three southern states. This service is scheduled to begin July 15 and continue for one year on a part-time basis. This program will be an integral part of, and will be administered by, the division of vocational-technical education. It will work in close cooperation with other State agencies, especially the division of industrial development.

Recommendation

In light of the high priority placed on career education, the council recommends that plans be formulated by the division of vocational-technical education for implementation of this concept within the bounds of funds and other available resources.

Response

Progress has been made through the program cited in the consideration of recommendation No. 2. In these programs, emphasis has been placed on career education. At the completion of the first year, the same school systems begin development of model programs in career education. Movement into expanded career education programs will require redirecting funds from ongoing programs or the use of additional appropriations. Vocational education is only one facet of career education, and therefore, should be expanded along with all other phases of the public education system. It is felt that progress has been made within the bounds of funds and other available resources.

Inservice training programs have been held for vocational teachers and local administrators. These were aimed at making teachers, supervisors, and administrators aware of the career education concept, as well as procedures to implement the vocational phase of the program.

Vocational education has been active in serving on a steering committee for career education, appointed by the Governor. The purpose of this committee is to plan and implement the Governor's invitational conference, focusing on career education in early fiscal 1973. This conference will endeavor to gain support of lay people from a vast cross section of the State's population from business, industry, labor, civic groups, PTA, students and educators.

It will also make recommendations in the adopting of career education plans to be presented to the legislature, State board of education, and the board of regents of higher education for implementation.

Recommendation

The State board should make funds available to alleviate the problem of inadequate vocational guidance services.

Response

Funds were not available during fiscal 1971–72 to alleviate the problem of inadequate guidance service in vocational-technical education. Every effort was made, however, to utilize every resource available to the division to partially meet this need. A series of workshops were conducted by the vocational supervisor of guidance involving guidance counselors across the State.

All schools operated by the division of vocational-technical education do have adequate guidance personnel.

Guidance services in the secondary school is the responsibility of the guidance section of the division of instruction. Plans have been formulated to employ placement counsels to work with students, present counselors, business, and industry. These plans will be implemented when sufficient funds become available.

Recommendation

It is recommended that the State board give greater emphasis to the dissemination of information to increase public awareness of vocational-technical education through the use of newspaper, radio, television, brochures, etc.

Response

The State board during fiscal 1971-72 conducted its policy of making releases to the news media through the department of education information office. This, however, constituted only a small portion of the coverage received by vocational education during the year. A major portion of published articles and information concerning vocational-technical education is made on a local level through the efforts of local directors, teachers, teacher associations, and youth groups. Plans were developed during that year for the up-dating of all brochures which will be used on a continuing basis. The Division has published the Vo-Tech News and four youth magazines which have been given wide circulation throughout the State to both educators and lay groups.

TEXAS

The second annual report of the council contained the recommendations made in the first annual report with supplemental recommendations identified with alpha suffixes, and recommendations XIII through XVII were added in the second report. In order to get the full picture, it is necessary to list council's recommendations for both years. The response to these recommendations will be summarized without specific reference to when the action or response was taken. The recommendations are repeated without the usual rationale to give some brevity.

Recommendations are as follows:

Recommendation I—Redirection of Education System

1. That the State board of education establish a mechanism, representative of various educational disciplines, interests, and levels and lay citizens representative of the economy and society of the State with the objective of redirecting the educational system to accommodate the relevant and occupational needs of individuals and prepare them for the work force in keeping with the needs of such work force.

Response

The State board did establish a 21 member advisory council, broadly representative, in July 1971. The council has met twice. In April 1972, the Texas Education Agency released "A Tentative Framework for Developing Comprehensive K-12 Career Education" after review by the council. The publication was sent to administrators in all school districts and plans are to review the publication in 1973.

2. That it become the policy and philosophy of the State and local boards of education that options be left open to students through a flexible education system to encourage adjustment of individual education programs in keeping with the interests, aptitudes, abilities and circumstances of the individuals to the end that all be successful in achieving a worthwhile life goal.

Response

State board of education: A restatement of the general philosophy of the State board of education (policy 1201), is contained in the State board policies and administrative procedures.

The board's statement of goals for public education includes the following: The public schools should help each student to develop his personal knowledge, skills, and competencies to the maximum of his capacity, and to learn behavior patterns which will make him a responsible member of society. In terms of their individual ability, all students should achieve, (2) occupational skills prerequisite to enter and advance in the economic system and/or academic preparations for acquisition of technical or professional skills through post-high school training. (3101.1)

3. That the State board of education adopt as a priority concern the feasibility of occupational education exposure for every child in Texas public schools.

Response

On May 4, 1970, the State board authorized 10 pilot projects in occupational orientation. These projects began in September 1970, and included the following programs and activities: Awareness to the world of work, survey and investigation of occupations and occupational exploration. These programs have been continued and expanded and some are now in their third year and the number has increased to 28. This figure does not include several projects funded by U.S.O.E. The influence of these programs is evident throughout the State and workable models are emerging in many aspects.

Recommendation II—Area Vocational School Jurisdictions

1. That area technical-vocational schools be established within the following guidelines:

   a. Metropolitan counties may establish one or more technical-vocational school jurisdictions within a minimum of 5,000 high school average daily attendance (HS ADA).

   b. Counties with a HS ADA population of 1,500 or more may establish one countywide area school jurisdiction.

   c. Counties with a HS ADA population of less than 1,500 may establish a multicounty or regional area technical-vocational school jurisdiction, with a minimum of 1,500 HS ADA. The State board of education may approve on an individual basis exceptions to this provision.

2. The administration of the area school jurisdiction would be by a board with one member representing each high school district, junior college or technical institute within the jurisdiction and one citizen for each public school person on the board. The citizen group would be representative of the communities and interests within the jurisdiction. Any special facilities established within the jurisdiction would be under the administration of vocational-technical education within the jurisdiction in order to prevent unnecessary duplication and to assure that programs are of high quality and meet the occupational needs of youth and adults within the jurisdiction in keeping with the needs of the labor market served.

3. An area school jurisdiction may be approved by the Texas Education Agency within guidelines after the citizens of the jurisdiction vote under the provisions of chapter 28, section 28.01—Texas Education Code—to establish an area school with tax revenue.

Response

Bills were prepared and submitted to the 62nd State legislature to implement this recommendation, but was not finally approved. The priorities committee of the State board of education now has under consideration the submission of proposed legislation to the 63rd State legislature that meets in January 1973.

4. Transportation of students be provided by the contributing district or campus and such transportation be financed by the State through an allotment of funds for area vocational school students based on a formula to be determined by the Texas Education Agency.

Response

The same response was made as above and is being resubmitted as outlined above for sections 1–3 of this recommendation.

Recommendation II–A

It is recommended that the State board of education incorporate into current policies, as many of the concepts outlined in paragraphs 1–4 as possible under present State statute, which will enhance opportunities provided in occupational skill centers.

5. That the Texas Employment Commission will be responsible for compiling labor market data and information with the cooperating support of the Texas Education Agency, Texas Industrial Commission, other State agencies and groups as well as trade associations, employers, labor unions, and others. Interpretation and transmittal of the data to the school systems for development of technical-vocational education programs for the most effective utilization of human resources of the State would be the responsibility of the Texas Education Agency. Funds should be provided for the implementation of this system.

Recommendation II–B

That the State board of education assign top priority to the development of such a system, dedicating all available resources to such development and implementation.

Response

Reference is made to the portion of this report for action on the supply/demand information system for Texas.

Recommendation III—Maximum Utilization of Facilities

That provisions be made for financial support to permit maximum utilization of technical-vocational facilities and resources after regular hours and during summer months for enrichment of curriculum for inschool youth, for out-of-school youth, and adults who are underemployed or unemployed.

Recommendation III–A

That the State board of education develop a data base on the utilization of existing facilities within the State, to determine the nature and extent of unmet needs and to establish the resources necessary to implement recommendation III for resubmission to the State appropriating authorities.

Response

The State board of education did request discretionary funds from the 62nd legislature. The request was not favorably considered. Then recommendation III–A was made in the 1971 report. During 1971–72 the Texas Education Agency staff conducted two statewide surveys. Plans are to refine and expand the surveys until sufficient information is obtained to better justify submission of budget request.

Recommendation IV—Establishment of Industrial Training Programs

1. That the State board for vocational education request discretionary funds for the establishment of a reservoir of industrial and instructional equipment to provide short intensive instructional programs whenever and wherever needed.

2. That the State board encourage the establishment of a joint task force of appropriate staff members of the Texas Education Agency, Texas Employment Commission, Texas Industrial Commission, the office of the Governor, and other State agencies and groups, and that it meet at least quarterly to review requirements for new and developing occupations and skills. Recommendations for the appropriate State agency to meet these needs should be made by this joint task force.

3. The advisory council supports the establishment within the Texas Industrial Commission of the office of director of industrial training. The director would serve as a member of a coordinating committee to be composed of appropriate staff members of the Texas Education Agency, Texas Employment Commission, Texas Industrial Commission, Office of the Governor, and such other State agencies and organizations as would be involved in order to establish relationships with new and expanding industry to meet the special needs of such economic development. The coordinating committee would identify the resources to meet such needs. The council would further support appropriation of discretionary funds to provide training, equipment, supplies, instructional facilities, and instructional personnel when not otherwise available.

Recommendation IV–A

That the State board of education conduct further study on the provision of recommendation IV (1) and (3) with a view toward renewing the request for funds during the 63d legislature.

Response

Discretionary funds were requested of the 62d State legislature for sections 1 and 3, but were not favorably considered. Legislation was also submitted on the subject but not favorably considered.

A position has been established and funded by Texas Education Agency within the Texas Industrial Commission to coordinate the education and economic development activities of the two agencies, pending more positive response from the 63d State legislature.

A study on the subject has also been funded by the Texas Education Agency, see earlier section of this report. The study should produce information needed to substantiate request for funds.

Recommendation IV–B

That the State board of education establish a mechanism within TEA and solicit the cooperation of groups named in part (2) of this recommendation to act continuously to develop, revise, and disseminate data on job opportunities and manpower needs for planning purposes, in addition to action outlined in part (2) of this recommendation.

Response

IV(2) and IV–B are closely related to recommendation II(5) and IV–B, with appropriate response and reference on page 71 of this report.

Recommendation V—Professional Development

1. The State board of education initiate a technical-vocational administrator internship program in the State.

Response

Texas A. & M. University, in cooperation with the Department of Occupational Educational and Technology of the Texas Education Agency, is participating in the 552 leadership development program as per part F of the Education Professions Development Act. Sixteen fellows will receive stipends plus dependent allowance, to pursue advanced degrees in the field of vocational education for a period not to exceed 3 years.

2. The State board of education work for preparatory programs for school administrators to include study and experience programs in the history, philosophy, and administration of technical-vocational programs, study of economic factors of a local community, the labor market serving the school, and the relations of these to the needs of students.

Response

On June 10, 1972, the State board of education adopted new policies for the preparation and certification of school administrators. In the new policies it is stated:

> Each program for the preparation of the school principal shall include elements designed to provide competencies in the administration of special education, reading, career education, and vocational-technical education and
>
> Each program for the preparation of the school superintendent shall include elements designed to provide competencies in the administration of special education, career education, and vocational-technical education.

3. The State board of education make provision for the development of a series of regional seminars during 1970–71 for the attendance of the local school superintendent and his curriculum administrator from the school districts in the State with over 4,000 ADA.

The seminars should also include junior college presidents and their deans of technical-vocational education. Seminars should utilize the best available talent in and out of the State in the area of education, technical-vocational education, manpower programs, labor market information, and the influence of those upon education programs.

Response

A pilot seminar entitled "The Use of Community Resources in Administering Technical-Vocational Education" was held in Longview, Tex., on February 1, 1972, with more than 50 of the above referenced persons present. Ten additional seminars are planned for the period September 19, 1972, through October 20, 1972.

Recommendation V–A

That the State board of education assign a high priority to implementing recommendation V (2) and (3).

Response

Action was taken on all three sections of the recommendation. The council has not requested further action in these areas of concern, but will follow with interest further developments.

Recommendation VI—Regulation of Proprietary Schools

That the State board for vocational education support mandatory licensure of proprietary schools to include the following provisions:

a. Texas Education Agency be responsible for administration of the act with the advice and counsel of an advisory council.

b. Adequate reporting of enrollments, completions, and placements by occupational categories.

c. Standards should be established to assure a quality product and should include such factors as teacher qualifications, curricula, and facilities.

d. Included in methods of operation should be a pro rata refund policy, promissory employment practices should be valid, schools and their salesmen should be bonded, and recruiting policies including solicitation and advertising should be carefully assayed.

e. Sufficient income from licensing fees, renewal fees, and noncompliance penalties to support licensing activities.

f. Proprietary school resources be considered in the total resources available to school administrators for developing comprehensive occupational programs in discharging their responsibilities for occupational preparation of youth and adults.

g. SB 261 be amended to include a representative of proprietary schools on the advisory council for technical-vocational education in Texas.

h. State board for vocational education should extend to administrators and teachers in proprietary schools inservice programs to improve the quality of instruction.

Response

Legislation was recommended by the State board and was passed by the 62d State legislature and became effective January 1, 1972.

The above action completes the recommendation of the council. Developments will be followed by the council as efforts are made to effectively utilize total resources of each community.

Recommendation VII—Information Retrieval System

That the feasibility of an electronic data system be examined with a view of implementing a coordinated information retrieval system. The State board for vocational education should initiate planning toward this end.

Response

A committee of seven key staff members was appointed to assist in modifying and developing the necessary forms to gather the data elements required by the U.S. Office of Education (USOE). One staff member has been assigned full-time to this effort. This vocational education retrieval system will be piloted in 15 public schools and 38 junior colleges during the 1971–72 school year. If this schedule cannot be met, the retrieval system will then be piloted in the 1972–73 school year.

Recommendation VIII—Professional Development

1. That the State board for vocational education in cooperation with the coordinating board on higher education establish a consortium to include higher education institutions with vocational teacher preparation programs for the purpose of training technical-vocational teachers.
2. Programs of industry/education cooperation to provide qualified teachers and to keep the teachers updated in their skills.
3. Institutions of higher education with vocational teacher preparation programs should involve employers in laboratory and internship programs for training.

Response

A design for the implementation of paragraphs 1, 2, and 3 of recommendation VIII is being developed for consideration by the State board.

A task force with representatives from vocational teacher training institutions, secondary and postsecondary institutions conducting vocational-technical programs, education service centers and the Texas education agency is developing a model for implementation of paragraph 1 of the recommendation.

Recommendation VIII–A

That there be established within the department of occupational education and technology, staff position(s) to perform the coordinative and leadership roles for education personnel development development in the field of technical-vocational education and for coordination within the Texas Education Agency with other education personnel development activities.

Response

A staff position has been approved and a member of the existing staff has been assigned to this position.

4. That teaching experience credit be given for related nonteaching work experience in determining salary schedules of technical-vocational teachers.

Response

The recommendation relating to granting teaching experience tenure for nonteaching work experience was rejected and returned to the advisory council.

Recommendation VIII-B

That the State board of education initiate a study to determine such factors as: limits which should be placed upon such work experience, criteria to be used in determining the usefulness of the work experience, the resources necessary to implement such a system and other factors which would be involved in implementation.

Response

A committee has been appointed by the department of occupational education and technology to design a survey instrument to be utilized in collecting information for implementation. Action on the matter will be requested of the State board of education committee on priorities. Reference—The above concerns and others are covered in recommendation VII, of this report.

Recommendation IX—Statewide Curriculum and Materials System

That the State board of education establish a statewide comprehensive technical-vocational curriculum and materials system. The system would serve as a resource bank with a publishing capability. An advisory committee would assist in identifying the objectives for the system and developing operating policies. Such an advisory committee would be representative of the education profession and employers.

Response

The 62d legislature did not include the funds requested by the board in the Appropriations Act to implement this recommendation.

Recommendation IX-A

That the State board of education move toward the goals outlined in the recommendation within the resources available and make preparation for renewing the request to appropriating authorities with supporting documentation. Further, that statewide coordination and leadership functions be assigned to staff within the department of occupational education and technology.

Response

A staff member has been designated to coordinate activities in curriculum and materials development and the State board of education has authorized the establishment of a statewide advisory council to assist in establishing guidelines for operation and direction of the system. Operation of the system will be restricted to availability of resources until such time as additional resources are made available.

The council will continue to maintain its concern in this area and observe further development to meet the ever expanding needs in this area, especially as they relate to other vocational areas and career education needs.

Recommendation X—Statewide Placement and Followup System

That the State board of education initiate on a demonstration basis in a minimum of 12 school districts, representative of the broad cross section of districts within the State regarding size, geography and other factors, a system of follow-up and report with the view that such a system when proven could be implemented statewide by September 1973. It is further recommended that the State board make an effort to identify students by a social security number by September 1971 as a base for identification and development of further systems of information and follow-up.

Response

Budget requests were made by the board of the legislature for $750,000 for fiscal year and $1,225,000 for fiscal year 1973.

The legislature allocated $250,000 in the Appropriations Act for 1971–72 and 1972–73.

Recommendation XI—Postsecondary Institutional Support

That the student contact hour formula for the funding of all postsecondary technical-vocational education be refined, improved and changes made in the formula rates to adequately fund technical-vocational education programs. Further, that provision be made and funds provided for approval on a project basis of special programs to meet particular needs within the service area of an institution.

That the Texas education agency devise and require a uniform cost accounting system which will display all elements of cost in technical-vocational education. Information gathered from this system would be used for management and planning.

Recommendation XI–A

That the State board of education assign a high priority to the development of the uniform cost accounting system and until such time as this system is operational that a contract be negotiated for maintaining and keeping current the established data base on costs as established in the advisory council study.

Response

A study was conducted to determine all costs of junior college education, and formula rates from this study were used to determine appropriation requests to the special session of the 62d legislature. The cost data base will be maintained with subsequent studies.

Recommendation XII—Development of Ancillary Personnel

That the State board make special efforts to provide as much direction through inservice education and other supportive services as possible, to enhance the effectiveness of these ancillary units in the meaningful development and growth of technical-vocational education in the State. The headquarters staff of the department of occupational education and technology should take the leadership in utilizing the resources of the field staff, applicable services of education service centers, employers and other groups in support of local school districts and their efforts to improve their programs in technical-vocational education. The council supports staff increases to perform these services.

Recommendation XII-A

That the State board of education give high priority to inservice activities with these personnel with special emphasis on the "supply-demand" aspects of the education product and effective utilization of local advisory committees and councils.

Response

This recommendation is being implemented insofar as possible by the present staff. Additional staff needs are under study.

During 1972–73 a guide on effective use of advisory committees will be developed in keeping with the needs of ancillary personnel.

Recommendation XIII—Adult Education

1. That the State board of education give high priority to legislation and appropriations for adult education in the State.

2. That the State board of education support a commitment to adult education and the establishment of a viable administrative structure at the State and local levels for adequate development and coordination.

3. That the State board of education review policies and procedures with a view to removing every barrier to adult participation in technical-vocational education programs at the secondary and postsecondary levels in order that total resources available be fully utilized.

Response

Requests for legislation and appropriations for adult education in the State has been considered by the 61st and 62d sessions of the State legislature, but has not received final passage. The State board of education requested the Governor to open a special session to this subject. A further request is being made to the 63d session of the State legislature that meets in January 1973.

On April 8, 1972, the State board of education adopted a position statement on the community school concept which reaffirmed the role of the public school as a community center for people of all ages. During 1971–72, a staff member was given the responsibility of coordination of adult programs in the secondary and postsecondary divisions with the adult and continuing education division of the department.

The staff will continue to seek ways of resolving barriers to adults participation in tehncical-vocational education programs at all levels.

Recommendation XIV—Public School Occupational Programs

1. That special attention be given to vocational agriculture and homemaking in smaller school districts (under 300 HS ADA), to

make the programs as comprehensive as possible. Redirect the programs to combinations with cooperative and preemployment aspects wherever possible.

2. That all vocational teachers be encouraged to cooperate with and be supportive of information, orientation, exploration and other aspects of career development in all phases of the education system.

3. That local education planners be encouraged to review local vocational programs for improvement in comprehensiveness, accessibility and quality between campuses within school districts and between neighboring school districts.

4. That State leadership work with local education leaders to further develop the "cluster concepts" in vocational education offerings and the involvement of community resources to support fully such efforts. The environmental technology program is an excellent example of this concept.

5. That the State board of education initiate a study of preemployment vocational programs in the secondary schools to determine the feasibility of starting exploratory and/or skill training below the 11th grade in order to reach students earlier in their school experience, and perhaps to provide more flexibility within the school curriculum.

6. That consideration be given to the initiation of bilingual programs in vocational education and other actions necessary to adjust for language and cultural differences in appropriate areas of the State.

Response

There was a review of progress that has been made in the last 8 years in redirecting vocational agriculture and homemaking programs and an outline of needs that still persist in this special area of need.

All vocational teachers are being encouraged to participate in career development. Some specific examples were cited.

Leadership and technical assistance will be provided for work with local administrators in evaluation of local programs and develop further plans for improvement of comprehensiveness and availability.

Reference was made to existing and developing programs to embrace the "cluster concept" in vocational education. Also, that vocational agriculture and homemaking are oriented in this direction and also are comprenensive and offered at levels below the 11th grades. It was also pointed out that preemployment laboratory programs are developing for students below the 11th grade.

Recommendation XV—Guidance Services

1. That the State board of education lend its encouragement and support to every effort of local education agencies to provide adequate counseling staff that is supported in their principal objective of developing a counseling program responsive to the needs of all students and adults.

2. That every effort be made to involve teacher educators, local school personnel, education service centers, business and industry,

Texas Employment Commission, and other agencies and groups in inservice training and support of school counseling activities.

Response

The need to expand and upgrade guidance services at all levels and in all areas is supported in the response. Action is being taken to provide materials and inservice activities for counsels to improve their effectiveness.

Recommendation XVI—Examination of Barriers in Education and Employment

That the State board of education establish a task force of educators and employers at the State level, involving other agencies and groups, to examine barriers in education and employment and recommend corrective action and that local education agencies be encouraged to take similar action on the local level.

Response

The Texas Education Agency has an agencywide committee that was organized and is functioning in answer to a court order entitled Civil Action No. 5281. It was suggested that this mechanism be utilized to resolve barriers referenced in the recommendation.

Recommendation XVII—State Plan for Vocational Education

1. That the U.S. Commissioner of Education review carefully the present guidelines in view of the statutes with a view of changes that would render the State plan for vocational education an effective planning and management document.
2. That the State board of education consider the addition of State-initiated sections to more accurately reflect the total planning and management of technical-vocational education in Texas.
3. That the development of the State plan involve the data from local long-range plans and that every effort be made to provide technical assistance and leadership to local education agencies in developing realistic plans that culminate in a State plan representative of the needs of the State.

Response

A review was made of several changes made in the USOE guidelines to make the Stae plan for vocational education more of a planning and management document. It was pointed out that more latitude was made for optional provisions and that Texas had responded by supplementing the plan. That the State staff will continue to furnish technical assistance to local education agencies in planning.

UTAH

The Advisory Council has made 25 recommendations during the past 2 years, both general and specific, concerning vocational-technical education in Utah. These recommendations have been made primarily to the State board for vocational education, which is also the State board of education. Recommendations have also been made to the board of higher education, the State legislature, the department of employment security, and the general public.

One hundred copies of the 1971 "Annual Evaluation Study" were distributed throughout the State. An additional 13,000 copies of a public relations version of this report entitled, "Career Education—An Idea Whose Time Has Come," have been distributed. These reports went to members of both boards of education, local school superintendents, local school boards, legislators, school principals, school counselors, church leaders, businessmen, postsecondary presidents, the news media, students in education, service clubs, and the general public. Both the evaluation study and the annual report included the Council recommendations concerning vocational-technical education.

The Advisory Council is pleased with the response to these recommendations. There seems to be a general awareness that career education and vocational education are a significant part of the education process. The Advisory Council feels that the State board for vocational education has been especially receptive to our recommendations and that they have made a sincere effort to implement many of them. Other groups have also been receptive.

The Advisory Council feels that much of the success of the reception to the recommendations has been the wide publicity and the efforts we have made to assure that they are being implemented. The Advisory Council recognizes that we do not administer programs, but we can publicize, motivate, inform and persuade. For example, the Advisory Council has made a recommendation that local advisory committees of the forty school districts and the postsecondary institutions need to become more effective. The Council held nine regional meetings throughout the State to activate, motivate, and inform these local advisory committees. Educators were invited to participate, since they are in a position to get these committees organized. The Advisory Council invited 746 persons to these meetings and 69 percent, or 516 of them attended. The Council expended some $2,000 for these meetings, and we feel this was one of the most successful things we have done. During the meetings, the career education concept was emphasized and participants were encouraged to implement this concept in the education system with which they are immediately associated.

Recommendation 1

The State legislature and the boards of education, including the board for higher education, should review the total funding for postsecondary education to more nearly relate education needs with job opportunities.

Action

The board of higher education recommended, and the legislature at their session in January increased the funding for the Technical College at Salt Lake by some 43 percent and the Technical College at Provo by some 34 percent. Funding for vocational education has also been increased at Weber State College and the College of Eastern Utah.

Recommendation 2

The State legislature should increase the funding allocated to vocational-technical education in the secondary schools so that the career development goals can be realistically achieved.

Action

The legislature, in the 1972 session, increased the funding for the 1972–73 year for vocational education in the secondary schools from 2 percent of the total D.U.'s to 3 percent, or from $2.4 million to $3.7 million to cover the costs of vocational education over and above that for a regular program. The 1971 legislature increased the funds earmarked for vocational education from $1.4 million to $2.4 million, so there has been a substantial increase during the past 2 years.

Recommendation 3

The content, purposes, and objectives of vocational-technical education and career education need to be thoroughly publicized so that all will know what can be gained from taking vocational-technical courses and through career preparation. Efforts must be made to convince citizens of Utah that all work is honorable and that real success is doing well what one does best.

Action

Considerable publicity has been given through the press, radio and TV. The Mormon Church "Gospel of Work" program is underway. The Advertising Club of Salt Lake, the Chamber of Commerce, and the sales and marketing executives have programs underway also.

Many legislators, local district superintendents, and the superintendent of public instruction have given speeches in support of vocational education and the dignity of work.

The State board of higher education has emphasized the importance of career oriented instruction and the dignity of all work through several programs. Career education—particularly that part which includes vocational-technical curricula—was the theme of several "System Viewpoint" television programs this last year.

The State board of higher education dedicated its third annual education assembly to the question: To what extent should present and projected job availability be used in planning public higher education?

Nine regional meetings were held throughout the State to activate, motivate, and inform local advisory committees and to promote the career education concept.

The Governor and the State board of education, with support from the advisory council, sponsored a statewide conference on career education for educators, legislators, business leaders, and others.

Utah Power & Light Co., sponsored a 30-minute public relations film, "Blue Collar Green Dollar," for general TV audiences. The film was shown twice in the area.

Recommendation 4

Occupation and career guidance personnel should be better trained and more work oriented, and should stress entrance into occupations for which there will be jobs available and which are consistent with student interests.

Action

All high schools within the Salt Lake, Granite, and Box Elder school districts either now have career guidance centers or are in the process of developing them. High schools in Davis and Nebo school districts are also developing career centers.

During this past summer, 15 high school counselors worked at the department of employment security becoming more familiar with the job market and placement activities.

Recommendation 5

A comprehensive program for creating positive attitudes toward work and career orientation should be developed for the elementary schools.

Action

The world of work program is now in 30 school districts. In addition, several school districts, such as Nebo, have modified world of work programs in several elementary schools. This is an occupational awareness program to develop favorable attitudes in students, grades 1–6 toward various occupations.

Recommendation 6

Vocational-technical course offerings should be adjusted to be more in line with predicted labor market needs.

Action

The current State plan is geared in this direction. The distributive and health-occupations areas have been increased, especially at the postsecondary level in health occupations and the secondary level in distributive education.

During 1971 the State board of higher education restructured health occupations training to increase the output and shorten as much as possible the time in school. Through a series of role assignments, the health occupations programs are now clustered together at institutions where an orderly development of new programs can take place. The shorter concept will allow much greater flexibility as the labor market alters itself in the future. Students will have both vertical and lateral mobility without changing institutions.

The board of higher education approved a total of 19 new vocational programs at the various institutions this past year (1971–72).

A special vocational agriculture needs committee has been developing data to better assess the off-farm job training needs so that agriculture program enrollment can be brought more in line with job opportunities.

Recommendation 7

Better cooperation and exchange of information between the employment security offices, both State and local, and the State board of education, district superintendents, principals, teachers, and guidance counselors is a must.

Action

In developing the State plan, there is considerable cooperation and exchange of information between the department of employment security and the State board staff.

Local directors of vocational education were instructed and encouraged to work closely with employment security offices in there area. This direction was given at the annual vocational summer workshop held in June of 1972.

Last summer, 15 vocational counsels spent several weeks working at the Department of employment security.

Recommendation 8

Clustering of programs for various occupations within occupation families should be emphasized so as to better utilize facilities and instructors and permit greater flexibility on the part of the student to choose training within the occupation family.

Action

Overall, there has been little activity in this area. But, the integrated shop program and certain programs in agriculture and health occupations are utilizing clustering concepts for various related occupations. Part of the problem is that we have not really defined clustering.

The State board of higher education's action in clustering health occupation programming together is a significant step. Sixteen occupational subdivisions were created and assigned to specific institutions for development. Weber State College has received a $1½ million grant from the National Institute of Health to further its programing in direct patient care.

Recommendation 9

Dedicated and talented vocational-technical teachers, coordinators, and administrators are to be commended for their dedication and successes, and should be encouraged to continue their contribution to this most important cause of bridging the gap between the world of school and the world of work.

Action

Vocational-technical personnel are feeling the impact of the changing attitudes on the part of many people toward vocational-technical education. They are finally beginning to receive some of the recognition and status they so richly deserve.

Recommendation 10

Technical colleges and area vocational centers should maintain and build programs directed primarily toward vocational-technical education.

Action

This is being done. Technical colleges and area centers are growing. Moab is now operating. The center in Roosevelt has been reorganized and is growing, and the center at the College of Eastern Utah is receiving substantial attention.

The three area vocational centers, Bridgerland, Uintah Basin, and Sevier Valley Tech, were placed under the control of the State board for vocational education. The State board is developing coordinated programs to serve the school districts and adults of the various areas.

Recommendation 11

Postsecondary and high school counselors and teachers need to be supplied on a planned, continuous basis with up-to-date information on jobs and job trends.

Action

A program has been underway where school counselors go on field trips to various industries. Fiften counselors worked with the department of employment security this past summer. One-half of their salaries comes from the board of education and one-half from the department of employment security. In addition, some individual counselors are taking the initiative and are making significant progress in this area.

The career centers being established at many high schools have excellent, up-to-date information on the job market.

Reccomendation 12

High schools should be as concerned with preparing and placing their students in jobs after high schools as they are with preparing and placing them in college.

Action

During the 1970–71 school year there were three placement counselors in the 87 high schools in Utah. During the 1971–72 school year there were 12 placement counselors. These placement counselors are full-time, but they have other functions along with placement. In general, high school principals and high school counselors are not concerned with placing students in jobs.

Recommendation 13

Our high schools should be able to graduate students who have either a job offer, a college acceptance—or both—on commencement day. Students should be encouraged to complete high school and then continue their career development at a postsecondary school.

Action

College acceptance phase is going great! Several school districts have adopted policy statements concerning every student leaving the school system with a salable skill. This concept has gained strength with the career education emphasis and should be used in more schools next year.

Recommendation 14

Prevocational programs should be expanded at the junior high school level to encourage career exploration.

Action

The integrated shop program (ISP), which combines prevocational and basic skills preparation, is now in 22 schools. The industrial arts curriculum program (IACP), or world of construction and world of manufacturing program, is now in 90 schools.

Recommendation 15

Advisory council members need to become more fully aware of the significant contributions they can make to vocational-technical education through their councils. Education leaders should more effectively utilize these advisory councils. Advisory council membership should include employers who provide realistic job information, and most important, employment opportunities to students.

Action

Of the 52 local educational agencies in Utah (40 school districts and 12 area centers), we have the names of 39 chairmen who have been designated to head up local advisory committees. A recent letter was written to the remaining agencies asking for the names of their committees.

Recommendation 16

The department of employment security should locate a placement counselor at several of the larger high schools as part of their outreach program in order to aid in the placement of students.

Action

Several meetings have been held in relation to this program and the department of employment security made a proposal to secure funds for this program on a pilot basis, but they were turned down. Discussion is continuing. At the present time, however, there are no department of employment security counselors at any high schools.

Recommendation 17

A simplified version of the State plan for vocational education should be distributed to local school districts to enable them to quickly review the objectives to be achieved.

Action

No action has been taken to date. The 1973 State plan states the objectives in a more readable form.

Recommendation 18

A fully comprehensive statewide master plan for vocational-technical education should be developed by the State board for vocational education, the board of higher education, the manpower planing council, and the department of employment security, with the advisory council assisting.

Action

The legislature passed a resolution requesting the State board for vocational education to complete a needs assessment study and report to the legislature by September 1, 1972. This study in complete and a draft copy has been made available to the advisory council. This is the first step in developing a master plan.

Recommendation 19

The Utah Technical Colleges at Salt Lake and Provo should become community technical colleges based on the following concepts:

a. A complete open door policy—no admission standards.

b. A policy permitting students to register any week of the year and to start the class at their level of learning.

c. Complete flexibility in meeting student needs, with emphasis on students receiving diplomas or certificates of completion when they have learned the requirements of the occupation rather than when they have attended the school for a certain length of time (learning the constant and time the variable).

d. Vocational and technical education must remain the central thrust of these institutions, both in the design and the physical facilities and in the curriculum.

e. Not less than 75 percent of budgets shall be devoted to vocational and technical education.

f. The chief administrator must be committed to the goal of meeting career education needs of the students for existing and anticipated occupations, and must have primarily a vocational-technical background.

Action

Parts d, e, and f, are currently in effect at both technical colleges. The Technical College at Provo seems to have a complete open door policy, and the Technical College at Salt Lake is moving in this direction. Neither technical college has instituted part b in their total program. There are a few programs (power sewing at Utah Technical College at Salt Lake for example) where there is an open entry —open exit policy in effect.

The Technical College at Salt Lake instituted a program in auto body and painting where students will receive a certificate of completion when they have met the requirements of the occupation rather than having to spend any particular length of time at the college.

The State board reviewed this recommendation and approved it as a policy for the technical colleges. The only change was that the term community college was deleted. The advisory council also feels that the technical colleges should retain their same names.

Plans are underway to really include the skill center at Salt Lake as part of the technical college. When this is accomplished, many of the concepts stated here will be in effect.

Recommendation 20

The board of higher education should review the status of the three 2-year colleges so that they may develop into community colleges and meet the education needs of the area in which they are located consistent with the needs of the entire State, with primary emphasis on career planning and development and preparing students for employment in existing and anticipated occupations.

Action

The College of Eastern Utah is moving in this direction. There is considerable cooperation between both Carbon and Emery School Districts and the college and planning is underway for a new vocational building.

Dixie College offers 23 programs in vocational-technical education and it has great potential as a strong vocational center. Snow College has been authorized three new programs in vocational-technical areas in the last 6 months, all of which meet critical needs in its geographical area.

Recommendation 21

The board for vocational education should implement a management by objectives program for vocational-technical education. This should begin at the State board level and include the State board staff and the local school districts.

Action

A program has been implemented for the staff at the State board of education.

Recommendation 22

The board for vocational education should develop and adopt a policy statement on vocational-technical education. We suggest that this policy statement include the following concepts:

Career development shall be the primary thrust of education in the State of Utah, with every young person completing the school program at grade 12 being prepared to enter postsecondary education or to enter useful and rewarding employment. Specifically, the secondary school curriculum shall be preparing every student for a career either in the vocational-technical area or in a profssional (academic) area.

Schools shall accept the responsibility for successful placement of the student in his next step in life, whether it be postsecondary training, full-time employment, or some special category such as homemaking, military service, etcetera; and, inasmuch as most of the employment opportunities for young people will be in the vocational-technical area, the schools will provide opportunities for a majority of students to prepare for employment in these areas, and in addition, the schools will provide career guidance counseling that will encourage students to prepare for employment in existing and anticipated occupations.

Every student in the school system, grades kindergarten through 12, shall have an opportunity to be exposed to and learn about the world of work: to explore career opportunities, to make a career choice with the opportunity to change directions at any time, and finally, to develop an entry level occupation skill in keeping with his aptitudes, interests, and desires.

Action

A position paper on career education, which includes vocational education and which contains practically all of the concepts suggested, was prepared by the professional staff at the State board and approved by the State board for vocational education. Hopefully, the concepts contained in this position paper will be implemented.

Recommendation 23

A study should be made of the occupational clustering concept so that it can be instituted at both the secondary and postsecondary levels so as to better utilize facilities and instructors and permit greater flexibility on the part of the student to choose training within the occupational family.

Action

The curriculum and roles function of the State board of higher education is built around the clustering concept. Roles are assigned to institutions so students can be assured that like programs and occupational ladders will be open to them.

At the high school level there has been little activity in this area.

Recommendation 24

The system to identify and authorize new vocational-technical programs at the postsecondary institutions including the two technical colleges, should be reviewed to assure these institutions are responding to the employment training needs within the State.

Action

This recommendation has been noted by the State board for vocational education and the board of higher education. The roles and curriculum committee of the latter board, through a set of priorities and role assignments, has now brought itself to the point where proposed programs receive immediate attention. Several times recently, a single month or two has been sufficient to collect the data and authorize programs.

The staff of the State board for vocational education is developing a master matrix showing the various postsecondary schools and their current vocational offerings, projected expansion into new or expanding programs, and the areas that should be deleted or curtailed. This plan will be reviewed by the State board and then coordinated with the board of higher education, who has also developed a master matrix, for role approval and action.

Recommendation 25

The board for vocational education should continue to give strong support to the area vocational school concept, particularly in the rural areas where small high schools are not able to provide students with adequate vocational-technical education opportunities.

Action

The four area centers are better organized than they have ever been. There are plans underway to possibly develop a center at Blanding. There still needs to be better cooperation between the local districts and the centers to really meet the occupation training needs of students in these areas. There are substantial funding and facilities problems at these area centers.

The State board of higher education is now investigating possible methods for more effective coordination between the area vocational centers and institutions in the State system of higher education. This last year a working agreement between the Bridgerland Center and Utah State University has enabled this facility to provide a broader scope of vocational curriculum. Also, coordination between Snow College and Sevier Valley Tech is being studied.

VIRGINIA

Extent of State Department Acknowledgment and Implementation of Recommendations in Second Annual Report

The State advisory council in its second annual report, September 1971, offered the following 18 statements for the consideration by the State department of education for the ensuing year and received the accompanying written acknowledgments:

Recommendations for Fiscal Year 1972

1. Career Orientation in the Elementary Grades

The Council recommends that there be instituted in each elementary school, grades kindergarten through six, a program of career orientation sufficiently broad to offer an exploration in the principal occupational fields, and emphasis on proper attitudes toward the world of work. This objective can be achieved only by occupationally oriented teachers and counsels and by budgetary provisions sufficient for implementation.

State Department Response

Two career education experimental model programs will be in operation in 1972–73 with major components at the elementary level giving emphasis to career awareness. These models allowing experimentation with this concept will make it possible for other school divisions to see examples and determine how best career education can be achieved in their schools. The standards of quality for public schools in Virginia speaks to career education and through the 5-year improvement plans to be developed each division will have the opportunity to establish long-range plans for their programs.

2. Occupational Education for All

It is imperative that the State department of education and local school systems provide for all persons a program of vocational and technical education so that no one will leave school without a saleable skill or adequate preparation for continuing education.

State Department Response

One of the purposes of education as stated in the standards of quality for public schools in Virginia is to acquire skills and knowledge needed for education beyond high school or for employment. These standards also specify that a school division must provide training in skills needed for employment for all students who plan to enter the world of work or have a plan by June 30, 1973, to provide such training.

3. State Plan Goals

The State plan should be formulated in such a manner that major goals and priorities are expressly stated either in an interrelated fashion or in a separate document.

State Department Response

The State plan has been developed each year according to the guidelines from the U.S. Office of Education. There have been some changes in the guidelines this year that present goals and objectives in a manner that will be easier to understand. Additional information has also been used in an introduction to part II which will be helpful to the State plan reader.

4. Public Information Facility for Vocational Education

The State advisory council further recommends that there be attached to the office of the director of public information a person experienced in vocational education whose responsibilities will be to gather and disseminate news and views pertaining to vocational education to the end that greater visibility and the resulting enhancement of the image of vocational education shall be achieved.

State Department Response

The division of vocational education has the opportunity to request additional State staff members and to include them as a part of the biennium budget. The priority needs for new staff would not allow a position of this type to be requested as one of the allotted positions to vocational education this year. The services of the office of director of public information are available to the vocational division and are utilized extensively. Increased news coverage is desirable and, through the existing system, efforts will be made to provide greater visibility to vocational education.

5. Public Information on Vocational Education

As a means for improving the general acceptance of vocational education, it is recommended that educational television facilities across the State be utilized to the practical limits of their potentialities for presenting information relative to the opportunities for occupational training and employment.

State Department Response

Vocational eduaction has utilized ETV for many program activities such as adult programs in agriculture, inservice training in data processing for business teachers, and vocational education work publicized with the showing of a film on vocational education statewide by all stations. Additional activities are being discussed and explored, and continued utilization of ETV will be made by the vocational education division.

6. Local Advisory Councils

In consideration of the potentially beneficial input by local advisory committees and councils, the State advisory council recommends that the director of the division of vocational education and his staff consider the advisability of continuing to encourage the establishment, evaluation, and wise use of citizen advisory committees on one or more of the following levels:

(*a*) Total vocational program on a school division-wide basis;

(*b*) For each special discipline on a division-wide basis;

(*c*) Special craft advisory committees on a division-wide basis;

(*d*) Either or both (b) and (c) on a single school basis.

State Department Response

The vocational division has always encouraged the use of local and State advisory committees and will continue to do so.

7. Youth Leadership Organizations

The Council further recommends that the staff of the vocational division in the State department of education continue to encourage wide participation in its professional members, related teacher educators, and supervisory personnel in sponsoring youth leadership organizations as a regular part of the school program.

State Department Response

The vocational education youth organizations are an integral part of the vocational programs providing opportunities for leadership and citizenship training. They will continue to receive major emphasis in the total program of vocational education. In addition, the young homemaker and young farmer organizations for young adults will continue to receive emphasis.

8. Job Placement and Followup

On the conviction that initial job placement and followup of vocational graduates, and school leavers having employment potential, are integral parts of occupational preparations, the State advisory council strongly recommends that serious consideration be given for employment of a competent person whose primary responsibility is in placement and followup, and that he be employed on a 12-month tenure for providing these services for all vocational education programs.

State Department Response

The two career education models mentioned under recommendation 1 include components for establishing a placement service with a full-time person to assist students leaving school to secure initial job placement. The standards of quality for public schools in Virginia provide for an annual followup of former students (dropouts and graduates) as a means of assessing the effectiveness of the school program. Also the local advisory committees and guidance counselors can play an important role in both job placement and followup. The vocational division is presently planning for a new followup procedure to be used for those completing vocational programs. This will include a questionnaire being sent to the individual student for completion and is tentatively scheduled for use in the fall of 1973.

9. Postsecondary Opportunities—Community Colleges

Because of the rapid development of the technologies and resultant changing pattern of employment opportunities in the Commonwealth, the subsequent increases in the demand for qualified workers in the new industrial and occupational categories, it is imperative that vocational and career educational programs be expanded and modernized to meet today's needs.

It is, therefore, recommended that consideration be given to new and emerging para-professional occupations, particularly in the areas of:

- Social service occupations.
- Recreation and parks specialties.
- Public service administration.
- Allied health technologies.
- Environmental technology.
- Public safety.
- Fire science.
- Library and teacher aids.

There is evidence that instructional planning and programing in these areas are emerging at the postsecondary school level, especially in the community college program. Steps should be taken to insure that curriculum in these areas is relevant, based on occupational analysis, behavioral objectives, the job market, and followup procedures.

State Department Response

There is provision made in part II of the plan which indicates the expanding and new programs in many of the above-mentioned occupational fields to be in operation in 1972–73.

10. On Serving the Handicapped

It is alleged that unsatisfactory results have been accomplished with the funds designated for vocational education for the handicapped in the public schools. There is concern that State appropriations are insufficient for the matching of funds which localities are expected to provide. Greater State appropriations, it is believed, would eliminate the practice of over-using vocational rehabilitation funds and services for a program that is essentially the responsibility of the public schools.

The council recommends that this practice be given serious study.

State Department Response

There has not been a full utilization of the Federal funds designated for handicapped. Part of this has been brought about by the late funding in the first year of the Vocational Education Amendments of 1968. Subsequently, with the carry over provision of the Tydings amendment the allocation each year has been nearly doubled. These funds need to be matched on a 50–50 basis and full utilization has not been accomplished. Efforts are being made to alleviate this. One approach is the State funds requested by special education in the next biennium to be used to match some of the federal funds so pilot programs could be established with 100 percent reimbursement. There are also programs in the public schools where joint efforts with vocational rehabilitation are being explored. Continued participation is expected in the State institutions and through other State agencies where program assistance has been provided for many years.

11. Special Education

Since special education presents a splendid opportunity for creating innovative and exemplary pilot programs, it is recommended, therefore, that consideration be given to the establishment of additional innovative and exemplary programs for the handicapped children, especially with work-study activities.

State Department Response

The pilot programs identified in recommendation 10 will provide the opportunity to establish these kinds of programs.

12. Additional Facilities

In consideration of the fact that the secondary school output of employable persons is somewhat less than 50 percent of the estimated annual labor demands, it is strongly recommended that the highest priority be given to additional funding required for the additional proposed facilities identified in map G, part II, page 2, State plan fiscal year 1971. This involves the addition of 20 comprehensive high school vocational departments; 16 additional vocational education centers; and 4 additions to existing schools over a period of 5 years.

State Department Response

Efforts are being made to establish priority for additional funding to assist with the construction of the proposed vocational facilities of the local school divisions. Operational costs increase proportionally as new facilities are completed and sufficient additional funding has not been made available as rapidly as the need has developed.

13. Maintenance of Facilities

The council recommends that adequate financial provision be made for the maintenance of existing physical properties for vocational education by establishing a policy for the allocation of replacement funds equal to the annual attrition resulting from depreciation and obsolescence estimated at 5 percent to 10 percent.

State Department Response

Adequate replacement of wornout or obsolete equipment is extremely important if vocational programs are to stay up-to-date and provide laboratories for education that are equivalent to that in the business and industrial community. Again, sufficient additional funding has not been made available as rapidly as the need has developed. However, in alloting funds categorically for each fiscal year, the proportion of funds allotted for equipment is given a high priority.

14. Professional Staffing

In response to the known shortages of professional staff members in the division of vocational education, the council recommends that the State board of education give serious attention to the urgency for employing such additional staff members as may be recommended by the director of vocational education to suggested criterion: Uniform ratio of supervisors to programs and teachers involved in each of the principal services.

State Department Response

Increased staff positions in vocational education were presented as a part of the department of education budget requests for 1972–74. These were proportionate to those allotted other divisions in the department of education and represent those positions identified as priority needs.

15. Financing Imperatives

This recommendation is basic to the premise that every child, youth, and adult has an inalienable right to avail himself of such opportunities as contemporary society can reasonably provide for the development of his innate capacities for self-realization.

Conversely, it is the responsibility of the Commonwealth to provide for all its people the maximum opportunity for self-fulfillment culturally, socially, and economically.

Progress in the achievement of this goal implies and requires a higher relative priority for financing vocational education to the end that every adult citizen become a self-sustaining member of society.

As a matter of long-range expediency as well as for inherent humane reasons, the advisory council recommends that the financing of vocational education be given a priority commensurate to the known needs of the individual and the employer. It is suggested that the generally established ratio of those students who do not complete the academic degree to those who do be considered.

State Department Response

Affirmative action by the State board on the budget request for vocational education for the 1972–74 biennium shows their acknowledgment of the importance of the program and its expansion. Though some funds were cut from the budget before reaching the General Assembly, a substantial request for vocational education was included. Additional Federal funds are also necessary to provide for a program of vocational education adequate to meet needs of all persons in Virginia. In addition to the budgetary action by the State board, their approval of the standards of quality for public schools in Virginia (see recommendations 1 and 2), shows the importance placed on vocational education and the persons it serves through secondary, postsecondary, and adult programs.

16. More Adequate Research Services

Further, it is recommended that the research facility for vocational education projected and described in fiscal year 1972 State plans (2.44–21: 111–55) be activated as planned and that programming be initiated that will provide information on enrollments in all career orientation, counseling services, and occupational enrollments, completions placements and followup services. These data should be available on prior year operations by August 1 subsequent to end of the school year.

State Department Response

Staffing of the research component for vocational education will be completed during the 1971–72 fiscal year. Plans are underway for this unit to put into operation a data system to provide information on enrollees in vocational education programs at the secondary level in 1972–73. Expansion of this data collection system at other levels is expected after the first phase is operational. Projections call for followup data to be collected by this unit also starting in 1973–74. Availability of this data may not correspond to the timing identified in this recommendation. Time frames are being established on the reporting schedule required to meet federal reporting deadlines.

17. Adult and Continuing Education

In addition to the regular secondary school program, the State board of education is responsible, through public schools, for developing and expanding programs in vocational education for persons who have completed or discontinued their formal public school education and have entered the labor market. Many of these persons need to upgrade or update their occupational knowledge, skills and performance. The courses provide a continuing, articulated, and sequential program from the high school adult level. They are generally taught and supervised by the persons who conduct comparable day programs in the high school.

During the school year 1969–70 the enrollment in adult vocational education in the public schools was 81,481. The enrollment in this program for 1970–71 (year under review) had grown to 93,815 or an increase of more than 15 percent. The courses included both short-term and long-term instruction at the midmanagement and craftsmen level, and training for occupations at both the semiskill and the skill levels.

It is strongly recommended that adequate provisions continue to be made for the improvement and extension of the adult education program with appropriate and accessible facilities and with an operating budget consonant with numbers served.

State Department Response

The adult vocational education program will continue to receive a high priority as a program activity. Substantial increases in adults enrolled in vocational programs for supplementary and preparatory training is identified in part II of the State plan.

18. Postsecondary Public School Program

During the school year 1969–70 slightly more than 2,600 persons who had completed the high school program enrolled in preparatory job training courses in the public schools and colleges.

For the year under review these enrollments totaled more than 3,600. These persons pursued courses leading to employment in such occupational areas as merchandising, electronics, industrial technology, health services, hotel-motel management, and management-level training in business and office occupations.

The advisory council further recommends that this program be continued and expanded to meet the growing manpower needs.

State Department Response

Continued emphasis will be placed on helping students to identify and prepare for career objectives throughout the kindergarten through 12 program. Many of these can be served through secondary vocational education programs while others may call for further training at the postsecondary 2-year level or in a 4-year college program. Additionally many needs will continue to be served through adult programs of vocational education in the areas of preparatory and extension training.

WASHINGTON

From Previous Report

1. Immediate steps should be taken to improve communication with user groups. Specifically, the advisory council recommends that:

a. The coordinating council—Washington State Coordinating Council for Occupational Education—establish and maintain contact with and seek the counsel of industrial personnel management organizations, industrial training associations, and training groups within labor organizations.

b. Key informational representatives of the coordinating council utilize the advisory council's information committee as an ongoing advisory group in public communication efforts.

c. The coordinating council completely overhaul and update all mailing lists used to reach user groups with particular attention paid to employers, youth clubs and agencies serving the disadvantaged.

2. A systems approach should be developed to insure improvement of career counseling in public schools. The council recommends:

a. The Governor appoint a task force to study the effectiveness of career counseling in our common school system, to report findings and to make recommendations for improvement arising from the study.

b. The inclusion within the certification requirements of all teachers of at least one substantive course in orientation to the world of work, and at least one course in the development of counseling skills.

c. The development of guidelines to assist our schools, community colleges, business, industry, and agriculture in providing to students meaningful programs of job exposure, information of job availability and placement liaison with local employers.

d. Improve the existing, or design a new, vocational graduate followup system to insure: (1) Accurate, statewide graduate information and (2) sufficient flexibiilty to fulfill counseling and program needs of local training centers.

3. The coordinating council should spearhead efforts to maximize use of school facilities. The advisory council believes that it is time to get off the dime and immediately undertake at least the following:

a. Gather and synthesize all pertinent studies and proposals applicable to facility utilization, including the 1971 budget proposal from the superintendent of public instruction for pilot projects in year-round utilization of facilities and staff.

b. Research school systems which have had experience with year-round utilization of school facilities such as Atlanta, Ga.

c. Encourage the State board of education to approve and the superintendent of public instruction to plan and assist in the establishment of several test districts in year-round schools.

4. The State advisory council should establish communication with general vocational education advisory committees at the local level.

5. The coordinating council should initiate a comprehensive study and appropriate subsequent action which will insure the effectiveness of local advisory groups.

The following findings result from the advisory council's analysis of action taken on recommendations made in its second report published in September 1971.

The coordinating council for occupational education was requested to make a status report by July, 1972. This was not done. They were again requested to provide such a report on July 27, 1972 and on November 8, 1972. As of publication date, no response has been received on recommendations contained in the advisory council's second report.

The advisory council is aware of some efforts made regarding its second report recommendations and those are reported as follows:

a. The coordinating council for occupational education has had contact with business and labor in establishing several advisory committees, but we are aware of no specific contact with industry and labor training organizations as recommended.

b. The advisory council initiated contacts with information representatives of the coordinating council for occupational education, superintendent of public instruction and State board for community college education. A number of meetings have been held and a good working relationship established.

c. The coordinating council for occupational education has updated and improved its mailing lists.

d. The coordinating council for occupational education did name a steering committee to plan a study of the effectiveness of counseling in our schools. The group has had two meetings.

e. Exemplary funds were designated for development of student placement services. No report on progress has been made.

f. A research grant was established to develop a graduate follow-up system. No report on progress has been made.

g. The advisory council has received but sketchy information in response to its request for information on general advisory committees at the local level.

h. The coordinating council for occupational education changed its State plan regulations regarding the makeup and use of local advisory committees.

The advisory council is aware of no action on:

a. Its recommendations on improving teacher certification requirements.

b. Its three recommendations designed to maximize use of school facilities.

c. Its recommendation to study the effectiveness of local advisory committees.

Because little attention has been paid to last year's recommendations, it is necessary to repeat most of them in this report. The following are restated because the advisory council believes the need today is as obvious as it was 1 year ago:

Recommendation No. 18: The coordinating council for occupational education should establish ongoing communications with training groups within business, industry, and labor.

Recommendation No. 19: The coordinating council for occupational education should place more emphasis on studying counseling and guidance in our schools.

Recommendation No. 20: The coordinating council for occupational education should initiate a study of the effectiveness of local advisory committees as a followup to changes in State plan regulations on advisory committees.

WEST VIRGINIA

This section of the evaluation deals with the status of the recommendations based upon the second annual evaluation of the State plan by the West Virginia State Advisory Council on Vocational Education.

At the end of some recommendations, we are including a section titled, "Further Recommendation," to indicate Council's concern for that educational area.

We realize that in some instances the bureau for vocational-technical and adult education has moved toward implementing our recommendations into their planning process. Our additional recommendations in this status section point up the need for the bureau to continue to consider these past recommendations.

Recommendation 1: Secondary

All existing secondary programs do not merit further expansion on statewide basis. Specifically, the fields of agriculture and home economics need to be evaluated and redirected so that they offer a better reflection of current trends in today's economy.

Agriculture programs have been traditionally oriented toward farming and production. This inclination persists in spite of declining farm population. The council recommends that programs be developed that are more in line with new job opportunities in agriculturally related industries (land reclamation and management, water resources, ecology, etc.). This could be implemented by redirecting efforts of present staff (at county level) toward new programs and curtailing traditional programs in this area.

Home economics programs offered in two areas—careers, and consumer homemaking. The council recommends that the major emphasis should be on career development, with a deemphasis on consumer and homemaking programs. The latter may have some merit, but do not offer training for the world of work.

The redirection of emphasis should be made on an area-by-area basis only after a careful review of training capabilities and job opportunities in each area.

Inasmuch as the major industry in West Virginia is coal, vocational programs related to skills in this area should be expanded in coal mining areas. This has been done on a limited basis in local units, but added emphasis at the State level should encourage further expansion. Liaison with management and labor is necessary if placement is to be successful.

The council further recommends that some competent agency make a manpower survey in order that job needs and opportunities may be accurately reflected in data which is used as a basis for program development.

The expansion of 10-month programs to 12-month programs is realistic, and would result in better utilization of facilities, particularly in area vocational centers. The State advisory council concurs with this objective.

Status

A review of actual current enrollments and long-range objectives from the fiscal year 1973 State plan for vocational education indicates no significant increases planned for enrollment in agricultural programs. However, the levels of enrollment are projected to remain at the equivalent of approximately 25 percent of the agricultural work force. At the local level there is evidence that vocational centers in some areas are considering the deletion of vocational agriculture programs from the curriculum. Where the agricultural programs are located in local high schools, however, the trend appears to be one of maintaining and in some instances expanding the programs.

Further Recommendation

In view of the long history of the existence of vocational agriculture programs in local schools in West Virginia, the resistance to modifying or deleting programs is understandable. However, at the State level, where the responsibility lies for the allocation of Federal and State resources, funding for agricultural programs should be minimized, and should occur only where there is a clear demonstration of a need for the program in meeting local or State manpower demands. It is likely that existing agriculture programs, funded through local sources, can meet the declining demand for agriculture workers both on-farm and off-farm, without additional support under the Vocational Education Act.

Mining-related Programs

Several successful mining-related occupational training programs exist in the State, at both the secondary and postsecondary levels. However, in view of the expected increase in the labor demand in this industry, greater emphasis at the State level should be given to expanding training capacity. From information collected at the local level, it appears that mining-related programs have been highly successful in terms of placement of graduates. One of the major deterrents to instituting new or expanded programs at the local level appears to be the heavy initial cost for equipment. In a few instances this obstacle has been overcome through cooperative arrangements with industry, and in at least one instance through the use of former MDTA program equipment.

Further Recommendation

Since mining is one of the major industries in West Virginia, it is imperative that the trained labor pool be responsive to the employment fluctuations in this industry.

An increasing number of jobs is anticipated in mining technology and equipment maintenance. A valid mining-related occupational training program should take into consideration a flexible training program designed to provide the worker with basic skills that may be applicable to other industries besides mining. If a major mining slump materializes, these workers will have the opportunity to shift to other maintenance positions not wholly unrelated to the mining industry.

In view of the expected labor demand and the high cost of the programs, consideration should be given at the State level to increased funding for mining-related programs. Additionally, the State should provide centralized coordination among schools, labor and industry to develop a strong, cooperative, and responsive system for meeting the projected manpower demands.

Manpower Survey

To date, no comprehensive manpower survey oriented to meet the requirements of the State's vocational education system has been completed. The State Department of Employment Security has undertaken a survey of business and industry in the State to assist in determining manpower requirements. However, the data from this study are not yet available, and since they are oriented primarily toward meeting the needs of the Department of Employment Security, there are likely to be problems in converting the resulting manpower demand data into occupational program requirements. The critical nature of the lack of adequate manpower demand data for vocational program planning can be seen from a comparison of the State plans for fiscal year 1972 and fiscal year 1973, where, in a single area, distributive education, the estimated level of current employment went from 72,500 in fiscal year 1972 to 27,216 in fiscal year 1973. There was a corresponding decrease in the projected expansion and replacement needs.

The area of manpower demand projections needs immediate attention, in order to develop a reliable planning base. A concomitant requirement is the availability of data which provides a reasonably accurate picture of the skill composition of existing manpower resources, both the unemployed and underemployed.

Further Recommendation

There are technical and mechanical difficulties involved in developing useful manpower projections. One reasonably effective answer is to develop a direct, almost daily involvement with business and industry in practically all phases of the educational enterprise.

The bureau for vocational-technical, and adult education has recognized the importance of a data system to provide the service. Since this system being initiated is only one step in the long road to a more comprehensive data system we encourage its development and utilization to further strengthen statewide program planning.

Health Occupations

Based on available manpower demand data and existing program output, it appears that expansion of health programs needs to occur primarily in the area of medical and dental technicians. Currently, registered nurses and nurses' aides are the principal output of the training system. The level of output on an annual basis appears adequate to meet the projected demands for these skills. Additional expansion in the health field should be encouraged through the development of programs to meet the increasing demand for medical and dental technicians.

Recommendation 2: Postsecondary

Postsecondary programs should be expanded, but not necessarily at the expense of secondary programs. Curricula should coincide with job opportunities and potential. Additional State funds should be made available for postsecondary training.

Status

Postsecondary programs have expanded during 1972, both under the board of education and under the board of regents. The bulk of the enrollment increase has occurred in the higher education system, in the part-time, terminal-occupational category. It should be noted that the enrollment and completion objectives for postsecondary students in the State plan for 1972 did not include a consideration of the activities of the higher-education system. Likewise, the completion and follow-up study, required by the U.S. Office of Education did not include postsecondary vocational graduates of colleges and universities. This rather drastic oversight has been corrected in the State plan for fiscal year 1973. This situation is indicative of the need for a more coordinated, comprehensive approach to planning at the postsecondary level between the board of education and the board of regents. Although instances of overlapping or competing programs at the postsecondary level appear to be rare, with the increased demand for skilled workers and the new Federal emphasis on community colleges, competition between the two systems with resulting waste and duplication appears inevitable unless immediate steps are taken to coordinate training efforts.

Recommendation 3: Adult

One objective should be the expansion of basic literary education programs due to a substantial need for these programs, especially in rural areas. It is recommended that expansion of special programs be included in the objectives.

The council also recommends the expansion of adult education programs designed to upgrade skills, or provide new skills, for employed individuals. These should be developed in conjunction with needs for business and industry.

Status

Currently adult basic education is available to all eligible persons through county school systems. Additionally, adult occupational training programs are generally available in many areas. A major area of concern with reference to adult programs is the need to achieve better coordination of training efforts with other Federal and State manpower programs, such as MDTA, which draw upon the same population for clients. This coordination is particularly necessary in order to develop a quick-response capability to meet the needs of business and industry on a short-term basis.

Recommendation 4: Disadvantaged

Local programs should be modified so that disadvantaged (overage and potential dropouts) receive special consideration for exposure to vocational education programs at least on an introductory basis. Such a program could reduce the dropout rate and satisfy the need for job-entry skills for these individuals. (Another advantage would be reduction in number of applications for welfare assistance.)

Special counseling and an active recruitment program for disadvantaged would also serve to keep many interested in job training.

Status

The availability of special programs for the disadvantaged, particularly those that focus on potential dropouts, is still quite limited. Although a few programs are in operation which provide occupational exploration opportunities for disadvantaged students in the 9th and 10th grades, vocational education in West Virginia is largely restricted to 11th and 12th grade students. As discussed earlier in this report, it is important for the State to obtain better data on the dimensions and characteristics of its disadvantaged population, and design and implement programs to meet their special requirements.

Further Recommendation

Since the Federal Government has stipulated a 15 percent set-aside for handicapped and disadvantaged programs it would be nice to think that local needs could be met through the implementation of these programs. However, it is our feeling that the intent of the set-asides was to establish programs where there is a relatively high percentage of handicapped or disadvantaged people. If this is the case, the guidelines are probably valid. However, in geographical area where there are not high concentrations of these people, the guidelines inhibit the initiative of vocational directors who fear that a Federal auditor will find students that do not meet the criteria in these programs.

In many instances, the unexpended funds may not be the fault of the bureau of vocational-technical and adult education or the local vocational director, but may be traced to the Federal guidelines.

These guidelines prohibit the purchase of equipment necessary to implement a totally disadvantaged program. This is not the case in schools that have been designated to handle handicapped and disadvantaged programs exclusively. Since educators are moving toward decentralizing handicapped and disadvantaged programs, the guidelines need to be adjusted to meet the needs of these students in any school that determines a significant need for these special programs.

Recommendation 5: Counseling

That the following counselor-student ratio be included under objectives: Secondary programs—1 to 300; elementary programs—1 to 500.

The present qualifications for counselors include at least 2 years teaching experience. This rules out recent graduates who may have majored in counseling but who have no experience, as well as those from business and industry. In many cases, they may be more qualified than others with teaching experience.

In addition, it is suggested that training for vocational counseling be given greater emphasis.

The council also recommends that the State board of education revise criteria for counselor qualification, eliminating the stipulation that specifies 2 years' teaching experience. It also recommended that in hiring counselors from outside the education field, more flexibility should be allowed.

Status

The State board of education has not taken action to approve the suggested revision of criteria for counselor qualification, nor does the fiscal year 1973 State plan provide any specific emphasis or support for modifying the current counselor/student ratio to achieve the levels desired by the council. Information provided by county vocational directors indicates that counselors are a key component in the attempt to expand vocational education, and in many instances their preponderantly academic orientation has the effect of depriving students of the opportunity for occupational education. The division of vocational education should assume a more aggressive posture in designing programs to reach counselors and acquaint them with the potential of vocational education.

Further Recommendation: Counseling

Guidance counselors are a key component in providing career information to students. Yet in large measure, guidance counselors are spending a disproportionate amount of time with academically talented students.

We recommend that the State board of education adopt the counselor certification revisions now being planned within the State department of education.

We recommend the continued redirection of the guidance effort in the State through a continuation of the vocational guidance workshops funded by the Bureau of Vocational-Technical and Adult Education.

We further recommend that any LEA planning a career education program be required to utilize sufficient guidance counselors to provide maximum exposure to careers by the students.

Recommendation 6: Placement

Local agencies should maintain closer liaison with business and industry in the community to facilitate placement, proper program emphasis and communications. Curricula should be oriented to local job opportunities whenever possible.

Status

The division of vocational education has recently completed a study of 1970–71 graduates of vocational education programs at the secondary and postsecondary levels, for vocational, industrial, technical, and health programs. Overall, the results show that 86 percent of those included in the study were employed, 63 percent in occupations related to their training. Additional data available showed that, of the total employed, 88 percent found jobs in the State, while 12 percent were employed outside of the State. The study encompassed a total of some 3,000 graduates, out of an estimated 9,000 graduates for the State as a whole. Data on graduates from programs in agriculture, distributive education, business, and home economics were not reported.

Recommendation 7: New Industry

A division of new industry training be established at the State level to develop programs for training potential employees for new industry.

Status

According to the division of vocational education, this function is currently being accomplished in coordination with the Department of Commerce. The entire area of the relationship between economic development and vocational education is currently being reviewed in a study being conducted by the council, and more specific recommendations on developing a responsive relationship between industry and education will be provided upon completion of that study.

Recommendation 8: Data Coordination

In order to coordinate information from various sources, a computerized management information system would facilitate compiling statistical reports. Such a system could also be utilized in analyzing data furnished by local educational agencies in determining allocation of funds to these agencies. Under the existing arrangement, any revisions from local agencies necessitate time-consuming reevaluation. Development of a management information system program would eliminate this delay.

Status

The division of vocational education has commenced with the development of the first phase of a comprehensive management information system. The initial data collection effort has been undertaken on student information. As a part of the council's own study efforts, an overall design for the total system, including a proposed implementation schedule, is being developed in cooperation with the staff of the division of vocational education.

WISCONSIN

Recommendation: The recommendations contained in last year's report be reaffirmed for further action and implementation.

The Wisconsin board of vocational, technical, and adult education has moved forward on these recommendations:

a. Every effort is put forth to expand the delivery of vocational education services to all Wisconsin citizens who have need for these programs.

b. Many activities have been undertaken to maintain continuity of service to youth in transition from secondary to postsecondary education.

c. Board statements have been published touching on agency roles and commitments in areas of common concern.

d. Progress has been made as evidenced by increased enrollment in services to disadvantaged and handicapped youth and other segments of the population.

e. Diligent effort is made at all times to cooperate with other governmental agencies concerned with human resources and manpower development. Staff liaison committees hold regular interagency meetings to improve articulation.

f. Excellent use has been made of 1970 census data in the development of reports and projections relative to vocational, technical and adult education in Wisconsin.

g. Current legislation addresses, and has modified, the procedures for funding vocational education in this State.

h. Increased participation on the part of the Federal Government has been encouraged for funding vocational education.

i. Progress is being made on many fronts, including the development of improved information, in professional development opportunities, in the review of certification standards, in the involvement of teacher training, instruction, in career guidance, secondary-post secondary articulation, and in the exploration of health training capabilities.

j. The project method for the allocation of Federal funds has proven to be an effective tool in assuring compliance in maintaining requirements, keeping State and local boards apprised of development, and in maintaining agency accountability for the commitment of Federal funds. While improvement in this process continues, no major change in concept is being considered at this time.

Recommendation: That the career education concept as proposed and supported by the U.S. Commissioner of Education be strongly supported as a model for implementation in the public education system of Wisconsin.

The Wisconsin Board of Vocational, Technical and Adult Education is actively engaged in career development education and has designated a career education site jointly with the department of public instruction. Over $186,000 from part C money of the 1968 vocational education amendments have been allocated to this project. Additional projects are now being projected.

Recommendation: That continued and expanded financial resources be strongly recommended from Federal, State, and local sources to further implement the vocational and technical education services for youth and adults in Wisconsin.

The 1971–73 budget increased the level of State aid reimbursement to 40 percent and 55 percent of the operating cost per full-time equivalent student in postsecondary programs for 1971–72 and 1972–73 respectively. This amounted to an increase of $14,553,300 in State aids over the last year of the previous biennium.

However the 1971–73 budget also reduced the taxing authority of the districts from 2 mills to 1.8 and 1.7 mills for 1971–72 and 1972–73 respectively.

This mill rate decrease reduces the potential property tax revenues for the districts by $18,421,000 during the 1971–73 biennium. However, the increase in State aids of $14,553,300 reduces the potential loss to $3,867,700.

The combined State and local revenues will be insufficient to meet the needs of some districts if their present growth rates continue.

Recommendation: That in order to avoid financial inequity and to encourage growth in enrollment and service, the State board of vocational, technical and adult education request sum sufficient State appropriations for vocational education.

A tentative rationale has been developed for the establishment of a sum sufficient policy on appropriations for vocational education. This recommendation has not been processed.

Recommendation: Preservice programs for teachers should continue to be developed with particular emphasis on ways of providing teachers for new and expanding occupational areas.

Although efforts have been made by both the VTAE system and the university system to review and analyze the process of preservice education for vocational-technical teachers in the VTAE system in Wisconsin, limited accomplishments have been made.

Recommendation: Additional emphasis is needed in the preparation of teachers of disadvantaged, both urban and rural.

Several conferences have been sponsored recently by the VTAE system to improve this aspect of teacher education.

Recommendation: Teacher education institutions should continue to look toward ways to provide students with the occupational competence necessary. It will not be possible or maybe even desirable to build educational programs in a teacher education institution so that the major portion of the occupational content can be included for many of the occupational areas for which teachers are needed. The field experience program at Stout State University and the intern programs at the University of Wisconsin are good examples of one approach.

Several teacher education institutions in the State are developing programs to provide student teachers with occupational experience. Very little research is available to determine the success of this aspect of the teacher education program.

Recommendation: Teacher education institutions should continue to move toward more flexibility in evaluation of competence for degree credit purposes gained as a result of professional training and industrial training or experience.

Significant effort has been made, and continues to be made, by cooperating institutions of higher education in meeting the needs of vocational, technical, and adult education in Wisconsin. University of Wisconsin-Stout services to the system are extensive and the newly-contracted Center for Vocational Education Studies there is bringing new focus to this service. Other services include extension courses to aid in-service personnel complete certification requirements. The university now has a professor in residence at the Milwaukee public schools consulting in career education, guidance, and coordination.

The University of Wisconsin-Madison has performed many services for vocational education and is moving toward increased services in the area. Various professors on campus have commitments to service the vocational educational system. Other educational institutions perform both preservice and inservice functions for the system.

Recommendation: Additional financial resources should be made available through the state board of vocational, technical and adult education for staff development. Consideration should be given to having a staff development position on the State board staff. The role might appropriately be one of promoting and managing resources as opposed to carrying out staff development functions personally.

Additional financial resources have been made available during this current year for staff development. A substantial allotment of Federal funds has been budgeted for professional development. Occupational conferences replacing professional growth week and under the supervision of State staff consultants have been expanded. Approval of the educational professional development supplement to the State plan has been received from Washington and great efforts are being made to recruit a full-time staff consultant for professional development.

Recommendation: Consideration should be given to supporting selected universities financially for carrying out rather clearly defined inservice activities on a continuing basis.

Solicitation has been made to the University of Wisconsin-Stout and the University of Wisconsin-Madison for project proposals in teacher education. As of this time, a formal agreement has been signed with the University of Wisconsin-Stout.

Recommendation: The State board should continue their efforts in making it possible for potential leaders in vocational education to secure further training through encouraging of policies at the district level which would make the pursuing of additional training possible.

A review of professional activities of State board staff would indicate that a substantial number of presently employed consultants are participating in a liberalized State staff professional development policy supported by the State director.

WYOMING

Extent to Which Council Recommendations Have Received Due Consideration

Action taken and fulfillment of recommendations:

Recommendation 1

That during fiscal year 72 the State department of education and division of occupational education continue to develop, implement, and evaluate the comprehensive occupational education program design, K–12, community college and continuing education.

Action

In comparing fiscal year 72 with fiscal year 71 it can be found that in fiscal year 71 the office of occupational education programs provided Federal funding to three State-originated exemplary career education projects and one federally originated career education program, the Riverton K–14 project. In fiscal year 1972, the number of State projects was increased to twelve. The Riverton occupational education project was in the second year of operation.

Success Factors

The Riverton exemplary project was developed as a State demonstration model for the Wyoming comprehensive occupational education program design. Expert leadership was provided to the system by State department of education and the office of occupational education staff and the University of Wyoming College of Education. State department of education sponsored workshops and meetings across the State for school administrators and faculty relating to the comprehensive program.

Recommendation 2

That, in order to provide for and collect more accurate and systematic program data, the State department of education should coordinate and assist local education agencies, community colleges, and other institutions involved in occupational education programing in collecting, reporting, and disseminating vital information about student enrollment, student followup studies, and teacher activities in the State's occupational education programs.

Action

In the fall of 1971, the office of occupational education programs implemented the VERIFY system of occupational education accounting.

Success Factor

Vocational education reporting and individual followup by year provided information on student enrollment, student dropouts, and strength of program areas. Also provided is an evaluation of the program and instructor indicating areas of enrollment increase, decrease, and dropout status. The system provided the office of occupational education programs with statewide printouts of the above information, and local printouts for the individual districts.

Recommendation 3

That cooperative systems (i.e., boards of cooperative services and community college agreements with local educational agencies) be extended and expanded to avoid duplication of educational programs and facilities.

Action

The community college commission, State department of education, and office of occupational education assisted and encouraged the community colleges' local school districts to provide formal and informal cooperative programing planning to avoid duplication.

Success Factor

The Western Wyoming Board of Cooperative Services appeared to be successful. Big Horn Basin Boards of Cooperative Services was in the third year of operation providing occupational orientation and work-training experiences to physically and mentally handicapped students. Three other community colleges had established informal cooperative agreements with local school districts, providing occupational programs to high school students. During fiscal year 1972 the State department of education entered the final phase of school district reorganization. In many cases, this curtailed ongoing cooperative arrangements and the development of such arrangements between school districts.

Recommendation 4

That the State department of education conduct a cost-benefit study of Wyoming occupational programs.

Action

A cost-benefit study was conducted during fiscal year 1972, and the results have been filed with the State department of education.

Recommendation 5

That the State department of education increase the number of occupation instruction programs for the handicapped students, disadvantaged students, and for adults.

Action

Comparing the number of projects funded in fiscal year 1972 against the number funded in fiscal year 1971, it was found that:

(1) Adult occupational education programs increased in fiscal year 1972 to 35 as compared with 16 in fiscal year 1971.

(2) Occupational education for the handicapped increased to 10 for fiscal year 1972 compared with the fiscal year 1971 total of 7; and

(3) Occupational education for the disadvantaged student increased in fiscal year 1972 to 10, as compared with 9 in fiscal year 1971.

Recommendation 6

That the State department of education continue to cooperate with the State advisory council in a public information program to enhance the image to occupational education and the dignity of work and to recognize employment as an integral part of education.

Action and Success

During fiscal year 1972 the office of occupational education programs cooperated with the State advisory council in the conducting of five public information meetings. These meetings, held at Worland, Rock Springs, Lander, Torrington, and Laramie, were well attended and provided much information in the area of occupational education.

Recommendation 7

That the State department of education and the University of Wyoming continue to provide inservice workshops for administrators, occupational educators, guidance counsels, and nonoccupational educators.

Action

The following workshops, seminars, and conferences were sponsored by or held in coordination with the office of occupational education programs:

Summer administration workshop—University of Wyoming.

Workshop on administration of VERIFY System—Casper.

Summer vocational conference—Cody.

Seminar on cooperative occupational education—University of Wyoming.

Workshop on cooperative occupational education—Casper.

Five EPDA workshops—

Career patterns in business and office occupations—Northwest Wyoming College.

Counselor workshop for meeting the career counseling needs of disadvantaged students—Eastern Wyoming College.

A cooperative office simulation seminar—University of Wyoming.

A seminar in agricultural occupations—University of Wyoming.

Home economics related occupations workshop—University of Wyoming.

Recommendation 8

Concerning disadvantaged youth, we recommend to the National Advisory Council and U.S. Commissioner of Education that the term "disadvantaged" be revised to include children in small, rural, geographically isolated schools, where there are inadequate funds to develop and support occupational offerings. The present definition and guidelines are directed toward urban centers.

Action

The office of occupational education programs concurs with the above recommendation that geographic isolation be included as a criterion for being disadvantaged.

State Advisory Council Followthrough

During fiscal year 1972 progress was accomplished by the State advisory council planning committee in evaluating and revising a 5-year plan for occupational education with measurable goals and objectives. From several meetings, the committee (comprised of four advisory council members, the State director and division staff) updated the 20 major objectives outlined in the plan.

The network of functions and activities drawn on the master plan chart, indicated required completion dates and the time required to complete the functions and activities. The functions and events were then evaluated and modified; thus, providing an evaluation and reporting system which provides progress reports to various levels of administration.

As a result of accomplishments on improving image of occupational education across the State, the council in cooperation with the office of occupational education staff will continue the public information programing; however, emphasis will be directed toward community, industry, and craft support.

In an effort to improve communication between the council and other agencies, meetings were scheduled with the Governor and State superintendent of public instruction, State board of education, State department of education, office of occupational education, Wyoming Vocational Association, and Wyoming Joint Apprenticeship and Training Committees. In addition, the councils provided support in planning and conducting the State occupational education workshop. These followthrough activities served to define the council's recommendations and to encourage their implementation.

PUERTO RICO

The Second Annual Evaluation Report (1971) of the Advisory Council was submitted to the State board for vocational and technical education, in a meeting of the board on November 30, 1971. The board reviewed the report and discussed its recommendation. Action was then taken by the board in the sense of receiving the report of the Advisory Council, but with a response as to each of the recommendations.

The response of the board in the form of comments to the recommendations made by the Advisory Council, are made part of this "Third Annual Evaluation Report." Action taken by the board is reflected in the implementation of VTE programs and services described in the report.

Last year recommendations, together with the responses were as follows:

Recommendation 1

Authorize and fund the position of Assistant Deputy Director for Vocational and Technical Education at the regional level, responsible for those administrative and operational responsibilities appropriate to that level and vocational programs carried on therein.

Comments

The board for vocational and technical education has accepted this recommendation. In fact, AVTE had initiated this recommendation, since the board appointed an assistant deputy director for vocational and technical education for the San Juan educational region in August, 1971. Such appointments will be made for other educational regions as additional experience is gained on the functioning and effectiveness of this officer and as additional financial resources are made available to the Puerto Rico Department of Education by the legislature.

Recommendation 2

Design and implement a public information program to disseminate information about the availability of an educational opportunity that will result in a creditable, dignified way of life for the student, qualified employers, and vocational education as a major contributor to Puerto Rico's continued growth and development.

Comments

The Puerto Rico Department of Education has used the mass media of television, press, radio, exhibitions, lectures, etc., to show to the people at large, employers, and young people the implication of vocational and technical education for the future growth and development of Puerto Rico. The department has recruited additional staff, consisting of one television technician, two commercial artists, and one photographer-cameragrapher, in recent months and has attached them to the promotion office of AVTE. The promotion office is to begin soon on the preparation of a long-term plan and design for a public information program. This plan will have specific objectives, time schedule and budget.

Recommendation 3

Expand the public vocational-technical education TV channel facilities to meet the needs of the population unable to attend regular vocational school classes.

Comments

The department of education operates an educational television station. Through this station, a number of educational programs are relayed to the people of Puerto Rico. One of these programs, an evening course on installation and maintenance of air conditioning for automobiles was offered last school year for disadvantaged unemployed out-of-school youths. A new televised occupational course for a similar audience deals with electromechanics. This program, which is being given two times a week, in the evenings, provides for practical workshop training during Saturday mornings at seven area vocational schools. The effectiveness of the program is being evaluated by the department with a view to determining to what extent and in what direction the department's television facilities should continue to be used to reach the people, particularly unemployed, out of school, disadvantaged youths, in the area of vocational and technical education. It may be noted that the department has undertaken a complete overhaul of the physical plant of the television station as well as having bought new equipment for color television. It also plans to develop more materials as soon as the effectiveness of the electromechanics program is adequately determined.

Recommendation 4

Make a thorough study of the nature and problem of guidance and counseling so as to determine the needs in this critical area, where we have a very high ratio of students to counselors of 820 to 1.

Comments

The board has been highly conscious of this problem and has undertaken measures which could improve this ratio. In fiscal 1969, the ratio of students to a counselor was 934:1. The goal for 1970 was to reduce this ration of 880:1. The goal was surpassed by the fact that AVTE recruited 58 additional counselors in 1970–71, increasing the total to 320, or an increase of 22 percent. Some of the increase in the number of counselors was offset by increase in enrollment in secondary education.

Recommendation 5

Reexamine the major occupational clusters from the point of view of establishing more appropriate balances and lengths of time between academic and occupational education since many occupational clusters in the secondary education area may require less than three years of preparation and occupational instruction as required now.

Comments

The long-term plan for AVTE provides for exposure and exploratory experience in a cluster of occupations during 1972–73 so that the students will be able to select a trade of their choice for intensive training in trade and industry. Though this program, the number of students trained in fiscal 1973 will be increased to 533 and to about 900 by 1977, as compared to 100 in fiscal 1972. Under this program, a cluster of occupations with emphasis on laboratory work will be provided in five selected area vocational schools. In addition, guidance counseling including followup of learning experiences will be provided to more than 500 students in the cluster on trades and industry. As a part of the program, the present classroom slots will be reduced and the dropout rate will be diminished.

To realize the above goals, AVTE has undertaken a thorough evaluation of mix between academic and occupational education. Major concern in this evaluation is as to how to prepare students academically who are in AVTE so that the students have greater manipulative skills and can adjust to new technology and situations as they develop. The department has prepared a program to recruit a number of experts to undertake this task in the near future.

New Recommendations—Goals I and II

Recomendation 1

That both the State and local plans be developed in a manner reflective of planning for yearly activities, the unexpected outcomes, and the follow-up or evaluation of the same. These plans should become a management tool throughout the year for direction and to enable administrators to provide more effective supervision and management over program operation and expenditure of funds.

Comments

The Department of Education of Puerto Rico has organized, since 3 years ago, a division of educational planning. This division has a very wide responsibility in the areas of educational planning, evaluation and research and covers all department educational activities. In addition, AVTE has appointed one technician on a full-time basis to develop the necessary plans and programs throughout the year. AVTE has already prepared two 5-year plans and is in the process of preparing a third 5-year plan. The plans have been used for evaluation of realization of objectives and goals, as well as in evaluation of overcoming their financial or manpower scarcities. This does not mean that planning in AVTE does not require strengthening. In fact, we do recognize the need for better and all-round planning and intend to take the necessary measures to improve further the performance of this area.

Recommendation 2

That the AVTE use the coordinated electronic system of data collection and print-out for program planning as an aid to administrative decisions.

Comments

The AVTE is a part of the structure of the total department of education. It is strongly felt by the department that the information system for education should cover all aspects of education. Recently, an expert in the area of management information systems has been recruited to design an information system. Since the department already owns and operates an IBM 360 computer, there will be no delay in implementing the information system as soon as the system is prepared and ready for operation. It is believed that the system will provide for necessary outputs and reports, including those for vocational and technical education. These reports would be made available to the decision-makers at appropriate intervals.

Recommendation 3

That the State board for vocational education through its staff establish a task force which must take affirmative action within four (4) months to delineate how the State plan will be written so that both the State plan and the data collection system will be compatible.

Recommendation 4

That the State board of vocational education request the director of AVTE to establish a State plan writing committee to work throughout the year with a goal of completion of the State plan for April of each year.

Comments

A committee consisting of the chief planner of AVTE and 10 program directors was appointed on December 6, 1971. The committee has been given the responsibility to prepare a long-term plan for the year 1973. The committee has already met three times and during these meeting the following points were discussed:

1. Definition of a system.
2. Collection of data and information necessary for plan preparation.
3. Discussion of guidelines for the preparation of the plan.
4. Specific responsibility of committee participants toward the long-term and annual plan.
5. Time schedule for the preparation of the plan and submission of the plan to necessary committees and groups.

It is expected that the State plan for Puerto Rico will be ready by April 1972.

Recommendation 5

That the area for vocational and technical education approach the secretary of education and the legislature, if necessary, for a new modern streamlined purchasing system for use by the AVTE.

Comments

The Puerto Rico Department of the Treasury has the central responsibility for designing regulations for purchasing educational materials, books, and equipment for the department of education and other government agencies. During the past 3 years the department of education has been authorized, on an experimental basis, to handle all matters concerning purchasing books, materials and equipment for all vocational programs sponsored by the AVTE. However, further changes are needed that may require amendments in legislation, and the secretary of education is making very serious efforts toward this end.

Recommendation 6

That the State board of vocational education with the staff meet with the Secretary of Education to outline a flexible certification code for vocational and technical education teachers which emphasizes up-to-date employment experience and professional competence as well as academic background.

Comments

The laws of Puerto Rico provide that persons teaching in the public schools must comply with certain basic requirements, such as citizenship, academic training, experience, age, et cetera. These characteristics provide for industrial education personnel. Periodic revisions to the present certification regulations provide for introducing the necessary changes as to professional and academic requirements that provides for an up-to-date certification system.

Recommendation 7

That the State board of vocational education through its staff require that at least each comprehensive high school and technical institute include provision for a system of placement and follow-up of all vocational and technical students. This should be required in the local plan of each of these schools.

Comments

The board has ordered a detailed investigation and feasibility study of this recommendation. It is felt that the recommendation can only be carried out over a number of years at an exorbitant cost. Nevertheless, the board wishes to investigate this area fully in the near future.

Recommendation 8

That the State board of vocational education through its staff initiate a pilot or demonstration program of occupational information beginning in the elementary school and that additional funding be provided to expand the industrial arts program to reach more students at the junior high school level.

Comments

The department of education has planned to establish a coordinated program of occupational awareness as an integral part of the total elementary program. This activity will include identification of ways of involving para-professionals, parents, business and industry in programs designed to promote awareness of work. Second, the department will initiate through regional vocational supervisors a system to incorporate occupational orientation into elementary curricula. Third, the Department will adopt and publish occupational information brochures for elementary level students. Fourth, the department will continue to promote occupational awareness at the elementary level through inservice education. Fifth, the department will expand the number of consumer-homemaking activities at the fouth- and sixth-grade levels which will help children to develop consumer knowledge.

Regarding industrial arts, the program has been allocated $286,000 for program expansion during fiscal year 1973.

Recommendation 9

That the Advisory Council working with the State board of vocational education and staff promote the improvement of the administration of vocational and technical education through programs such as seminars for chief school administrators such as superintendents, junior college presidents, deans of academic subjects and various agency board members.

Comments

The department of education has already conducted a number of seminars in various areas of management and administration for the superintendents, selected principals, regional directors, and deans of academic subjects. The materials emerging from these seminars are being published by the department in the form of books. The department will continue to pursue this policy of giving seminars in the next few years.

Recommendation 10

That the State board of vocational and technical education, working through its staff, emphasize the training of handicapped persons with at least 50 additional programs within the year 1972–73 to make up ground lost over the past 2 years.

Comments

There are approximately 2,000 trainable handicapped children in the 5–15 age group. Among these, approximately 500 are attending public vocational-technical education programs. A development of 50 programs, as recommended by the Council, would require doubling of facilities within 1 year. It is a well-known fact that it requires greater effort to teach a handicapped student as compared with a normal student. To double facilities in 1 year will constitute an insurmountable task. Therefore, the department plans to add 10 more programs which will increase the handicapped enrollment by 20 percent in a year. We consider that goal to be a reasonable one.

Recommendation 11

That the State board of vocational and technical education, through its staff, request future studies be written in such a way that the time lag may be greatly reduced between the time the study or report is accepted (completed) and the implementation of same in an active program of instruction.

Comments

The board accepts this recommendation and strongly feels that the department of education has already accelerated substantially the implementation of accepted reports.

New Recommendations—Goal II

Recommendation 1

It is recommended that a study be made to determine the extent to which vocational education is reaching all people at the secondary, postsecondary and adult levels in both public and private schools.

Comments

The board accepts the recommendation and wishes to proceed with the study as soon as available resources permit.

Recommendation 2

It is recommended that a global plan to bring the school closer to industry be formulated by encouraging instructors to take summer training in industry, by inducing industry to sponsor shops in particular schools, specially in those trades using costly and sophisticated equipment and by implementing as soon as possible the plan to allow the students to practice work in industry during their last year of training.

Comments

The board feels that there are already a number of action programs being implemented by AVTE; however, these programs should be consolidated and new programs added in order to bring the school closer to industry.

Recommendation 3

It is recommended that the manpower and training needs study be placed in the hands of all planning and curricular personnel to be used as guidelines in the planning of all vocational-technical offerings now.

Comment

Necessary action has already been taken.

Recommendation 4

It is recommended that greater emphasis be placed on the quality of counseling and placement services so that they may respond more adequately to the principle of career education and the new image of vocational-technical education.

Comments

The department of education continued to give emphasis to the quality of placement service, as it has done in the past several years.

Recommendation 5

It is recommended that a master plan for all vocational-technical education in Puerto Rico be started so as to eliminate duplicity of efforts by various agencies offering education and training at this level. The specifications for a master plan for postsecondary vocational-technical education system in Puerto Rico being developed by Barton and Garrison, at the request of the Advisory Council, could be used by all agencies concerned in setting a vocational-technical course that may meet the demands of industry.

Comments

The board accepts the recommendation of the Council and wishes to prepare a master plan for all vocational-technical education in Puerto Rico as soon as the resources available permit.

C. SUMMARY LISTING OF ACTIVITIES

WHAT ACTIVITIES ARE STATE ADVISORY COUNCILS ON VOCATIONAL EDUCATION ENGAGING IN TO FULFILL THEIR MISSION?

ALABAMA

1. Conducted eight public hearings on vocational education throughout the State.
2. Assisted State board of education with development of annual and long-range part of the State plan.
3. Held five general council meetings and four committee meetings.
4. Developed a statewide program evaluation system for use by the council.
5. Statewide TV and radio promotion project.
6. Conducted an evaluation of the State program of vocational education and made recommendations to State board of education.
7. Participated in six activities associated with the development of the State's vocational program with four other lay groups.
8. Legislative activity for increased funding of vocational programs on the local and State level.

CALIFORNIA

The council maintained its focus on insuring occupational opportunities for urban disadvantaged through vocational education and produced a series of position papers illustrating and making recommendations regarding this concern. The council recommended that the U.S. Commissioner of Education establish a clear set of guidelines and/or criteria for the identification of persons considered to be "disadvantaged." The council also recommended State VEA funds be concentrated in areas where the "disadvantaged" live and go to school, a separate entitlement system under part B and part F and the establishment of measurable criteria in the State plan for identifying disadvantaged students for use by local districts.

The council initiated a study of the question of governance of vocational education in California.

The council studied regional occupational centers/programs (the fastest growing component of the vocational education field in California) and is preparing to issue a report on its analysis.

The council has completed a listing of private post secondary vocational education schools in the State and has surveyed these schools to obtain data on the numbers of students trained in the various occupational code groupings. A total of 1,788 private post secondary vocational schools were identified in the survey with 959 reporting a total enrollment of over 194,000 students. The council provided this input for inclusion in the State plan.

The council worked with the State vocational education personnel responsible for the preparation of the State plan, has reviewed and commented on the provisions of the plan. The council commended the State staff on their continued improvement of the State plan within the constraints of the Federal instructions and made certain recommendations concerning programs for the disadvantaged as outlined above.

The council hosted the western regional meeting of State advisory councils and produced a complete documentation of the highlights of that session including the text of presentations made by the major speakers, Dr. Paul F. Lawrence, regional commissioner, U.S. Office of Education and Hon. Augustus F. Hawkins, Congressman from the 23d California District.

The council has closely monitored the progress of area planning committees. Council members frequently attend planning meetings and two are active members of area planning committees.

In addition to these activities, the council has reorganized the structure of its membership to encourage active participation of all its members. Three new members, two students and a county department of education representative, have been added to the council increasing its membership to 30.

COLORADO

1. The Colorado advisory council held several regular meetings during 1972.

2. Cooperated with University of Northern Colorado at its midwinter conference on vocational education to study and evaluate its teacher training program.

3. Visited El Paso Community College in Colorado Springs to evaluate and study programs offered.

4. Hosted the joint meeting of NACVE/SACVE in Denver, May 5-6, 1972.

5. Members attended an invitational workshop on career education held in Denver, May 10-11, 1972—members serving on task force for implementation of career education.

6. Produced a position paper on career education which was distributed all across the nation.

7. Visited Emily Griffith Opportunity School in Denver, Colorado to study and evaluate its programs.

8. Visited Colorado Mountain College at Leadville to study and evaluate its programs in vocational education.

9. Held a public hearing in Denver, September 29, 1972.

10. Produced a position paper on "The Effectiveness of Local Advisory Committees to Local Programs."

11. The council participated in three regional meetings for SACVE members.

12. The council members participated in two joint NACVE/SACVE national conferences.

13. The council members served as liaison between the department of occupational education and the business community.

14. The council produced its 1972 evaluation report.

15. The council is presently studying a proposal on career education by Colorado State University.

CONNECTICUT

The council has held a number of meetings as combined planning meetings, onsite informational visitations, and public hearings in the evening. We have been impressed with the imagination being shown in many local communities in meeting the needs of local citizens at all age ranges and at all education levels. However, as a result of these meetings and visitations we are urging much stronger leadership from the State in almost every area.

Given our concern for the lack of response to our recommendation for closer collaboration between the educational and employing communities, particularly in the area of guidance, the council, in collaboration with the Connecticut Business and Industry Association, conducted a series of seven work experience seminars for guidance counselors throughout the State. Attached is a copy of the evaluation of this series conducted by the University of Hartford's Department of Education and a copy of the brochure which was developed as a result. We also developed two Kalavox programs to be made available to local school districts for incounselor staff training.

We have provided information on the developing career education concept and its legislative form in the education amendments of 1972 (PL 92-318) to the following:

1. The education committee of the Connecticut Legislature of 1972 and of 1973.
2. The Connecticut Association for the advancement of school administration (includes most superintendents of schools).
3. The Connecticut Association of Coordinators of Vocational Education.
4. The Office of the Governor.
5. The Connecticut Business and Industry Association.

In collaboration with the New England Board of Higher Education and the Department of Economics of Wesleyan University, we conducted an attitudinal survey of 3,000 Connecticut households in terms of their feelings about vocational education at the secondary level in relation to college preparatory programs at the secondary level. The study demonstrates, among other things, that approximately 86 percent of respondents felt that the public schools should offer vocational education equally with academic subjects; perhaps the most interesting response was from 30 percent who were prepared to see a reduction in public expenditures on college preparatory courses to finance vocational education.

We believe that this study indicates that the citizens of Connecticut are ready for the concept of career education at the elementary, secondary, and postsecondary levels as defined in Public Law 92-318. Particularly, we believe this to be true in regard to "the infusion of occupational education on an equal footing with traditional academic subjects * * *"

DELAWARE

During 1972, the Delaware Advisory Council on Vocational Education conducted an exhaustive study of occupational/vocational programs at the secondary level in Delaware. Every school with such programs was visited. Every superintendent of schools and most building principals were personally interviewed by members of the council. Questionnaires were mailed to all secondary vocational teachers in the State and elicited an 86 percent response. Results and findings were transmitted to the Governor, the State board of education and members of the general assembly.

In addition to regular monthly meetings, the council was represented at:

All State and national conferences of vocational youth-organizations.

Delaware Agency to Reduce Crime (Membership).

CAMPS (Membership).

State Board of Education (Liaison).

Delaware Association for Retarded Children (Membership).

Education Commission of the States (Delegate).

National Committee for the Support of Public Schools (Delegate).

United Forces for Education (Membership).

Delaware Guidance and Personnel Association (Membership).

National Advisory Council on Vocational Education.

On several occasions, council members and staff testified before the general assembly on various bills affecting vocational and career education.

Council staff served as assistant project director for Delaware's career education model program and as national director of project 70001 (Model in Wilmington, Delaware).

As required by law, the council conducted an evaluation of all vocational education programs and services, prepared and submitted a report of evaluation to the State board of education, the Governor and the U.S. Commissioner of Education, consulted and advised on the development of the State plan for vocational education and held three public meetings to explain and receive input upon the plan and other matters relating to vocational education.

DISTRICT OF COLUMBIA

1. During the year, many things were accomplished. The first significant accomplishment was the hiring of an executive director for the council, after which time the council gained its fiscal independence from the D.C. Public Schools.

2. The council director and members took part in several conferences and workshops dealing with vocational/technical education and career education, including:

a. The Commissioner's conference on career education in the environment.

b. National policy conference on education for blacks.

c. NACVE/SACVE meetings,

d. Conference on career education by the education testing service, and

e. Women in the world of work seminar/workshop.

3. Dialog was opened between institutions of higher education and the Council.

4. Council members participated in touring vocational facilities in the district, meeting with the principals individually and collec-

tively, for the purpose of making onsite observations and evaluations of the vocational experience taking place in the district.

5. The chairman and a member of the Council participated in the seminar at Northern Arizona University in Flagstaff in July 1971, where detailed discussions about the role and purpose of State evaluations were held. It was reported that the seminar was highly successful and that efforts were being made for a following conference.

6. A presentation on Project Open-Access was made to the Council jointly by representatives of the Manpower Administration, U.S. Department of Labor, and of Project Open.

7. The Executive Director of the Council participated in the National Conference for Trade and Industrial Education held in Arlington, Va. on October 18–20, 1971. This afforded the participants opportunity to visit with their Senators and Representatives for support of H.R. 7248, Title XVI—Occupational Education. The conference discussed the $9 million research funds the Commissioner of Education was to give to the States for model career development programs.

8. Council members attended the joint meeting of the National and State advisory councils held at Hotel Sonesta on November 12–13, 1971, at which representatives from all over the Nation, including Hawaii, Alaska, American Samoa, and Guam, participated. It was learned that in the fiscal year 1973 State plan it is a requirement for the plan to state how the State boards respond to recommendations of advisory councils in all States.

9. The Advisory Council was represented at the meeting of the Regional Council on Health Occupations in Philadelphia, Pa.

10. The Executive Director represented the Council, and was instrumental in the development of the amended National Municipal Policy, Human Resource Development Section, at the 48th Annual Congress of Cities of the National League of Cities in Honolulu, Hawaii, from November 28 to December 1, 1971.

11. The Chairman and the Executive Director attended the AVA convention in Portland, Oregon, from December 2 to 8, 1971. It was the impression of the representatives of the Council that other councils around the country were heavily loaded with educators, and that more people from the community could not participate because they did not have the time.

12. The Council was represented by its Executive Director in the workshop of the central conference held at Lincoln, Neb., on February 9–10, 1972.

13. The Council held its public hearing on March 22, 1972, at which the leading employers in the metropolitan area, including business and industry, had an opportunity to express their views on vocational education in the city. Representatives of organized labor and D.C. congressional representatives were also invited to participate, but did not appear at the hearing nor submit a written statement.

14. Members of the Council toured the former National Geographic Building, which is the site of the Pilot Career Development Center, located at 3d and R Streets N.E. As a result of the tour and meetings with the vocational principals, the Council formulated and trans-

mitted to the Board of Education a list of recommendations for that facility and for the implementation of the career development program. These recommendations were presented to the Board of Educational at a formal meeting on April 10, 1972.

15. Several members and the Executive Director of the Council participated in a 30-minute radio broadcast on WMOD-FM in order to better acquaint the public with the role and function of the Advisory Council.

16. The Chairman, Vice Chairman, and Secretary-Treasurer of the Council participated in fiscal year 1973 budget hearings and presented testimony in support of full funding of the career development program and in opposition to the proposed deletions from that program for fiscal year 1973 by the Superintendent of Schools.

The Council has had a very good year.

In fiscal year 1973, the Council membership encountered a tremendous turnover: 16 new members and 7 continuing members. A day of orientation was held to give the new members an overview of the Council mandate and responsibilities. Guest participants included Mr. Lawrence Davenport, Chairman of the National Advisory Council on Vocational Education; and Mr. Harold Duis of the Bureau of Adult/Vocational and Technical Education, U.S. Office of Education.

Also during fiscal year 1973, the Council participated in two joint workshop/seminars with supervisory staff of the Department of Career Development programs for the purpose of disseminating knowledge of the ongoing programs.

Council members themselves have participated in numerous community organizations, such as Advisory Council on Teaching Technology at Washington Technical Institute, Widening Horizons Board, Inter-Met, Mayor's Commission for Food, Nutrition and Health, National Reading Council, and functions such as high school graduation banquets and exercises.

Also during fiscal year 1973, the three officers of the Council presented testimony in support of increased funding for the public schools for fiscal year 1974 with special emphasis on career education.

Additionally, a dialog has been opened between members of the Education and Labor Subcommittee of the House Committee on the District of Columbia and the Advisory Council.

GEORGIA

The Council has been involved in several meetings throughout the year in which the public has been involved, including a public hearing on the State plan for vocational educational held in Atlanta in May 1972. The Council cosponsored the Governor's conference on career education in Macon, Ga., on October 10–11, 1972, in which over 1,000 persons, including representatives from business, industry, government, and education were in attendance. During the period of time between May and December of 1972, the Council conducted a series of 16 regional hearings throughout the State to provide the present and potential employers of vocational education graduates an opportunity to express their viewpoints regarding vocational education. Another activity of the Council included a study of Georgia students at the postsecondary level.

HAWAII

Regular meetings.—Twelve monthly meetings were held on the third Wednesday of the month in Honolulu.

Completion and submission of required reports.—The Annual Evaluation Report for fiscal year 1971 was completed and submitted to the State Board for Vocational Education (Board of Regents), U.S. Office of Education and National Advisory Council on Vocational Education (October 1, 1971).

Part II of the evaluation report was completed for in-State use only and submitted to the State board for vocational education (March 1972).

Contacts with vocational education personnel:

July 1971—The executive secretary participated in a seminar for the evaluation of vocational education at Northern Arizona University.

August 1971—The council participated in first convention of the Hawaii practical Arts and Vocational Association.

September 1971—Council member participated in exchanges with 18 other State councils at the western conference of State advisory councils on vocational education in Carson City, Nev.

November 1971—Chairman and executive secretary participated with 49 other States in a joint meeting in Washington, D.C. with the national advisory council on vocational education.

Staff and members participated in meeting with vocational education coordinating advisory council consisting of three advisory council (commission) members, three members of State board of education, and three members of the Board of regents.

December 1971—Council member participated in national convention of the American vocational association held in Portland, Oreg.

January 1972—The State council hosted an inspection visit to Hawaii by Mr. Lawrence Davenport, chairman and Dr. Calvin Dellefield, executive director of the National Advisory Council on Vocational Education.

Council members visited Kapiolani Community College, Maui Community College, Hawaii Community College, McKinley High School, Hila High School, and Schofield Barracks (project transition) in conjunction with the inspection visit of national officials.

February 1972—Executive secretary participated in a conference on developments in vocational education evaluation at San Diego with other Western States.

March 1972—Staff and members participated in the preparation of the State plan for the administration of vocational education at a workshop at Honolulu Community College.

April 1972—Staff and members participated in meeting with vocational education coordinating advisory council consisting of three advisory council (commission) members, three members of State board of education, and three members of the Board of regents.

May 1972—Council member and executive secretary participated in national conference on vocational education, Denver, Colo.

Council cooperated with the vocational education coordinating advisory council in the public hearing on the State plan for the administration of vocational education in Hawaii.

IDAHO

Developed and prepared the 1972 annual report on vocational education in Idaho, and met with the State board of education to present and discuss same.

Distributed the 1972 annual report throughout Idaho, and mailed some to other States.

Meeting with State superintendent of public instruction and his administrative assistant, and the State director of vocational education and his assistant in terms of providing input in their joint preparation "A Comprehensive Educational Program For the State of Idaho" (career education guidelines).

Sponsored a 1-day meeting with school administrators, school trustees and legislators to discuss ways to improve and expand vocational education programs in Idaho. Also made plans for a meeting of this type in North Idaho, but the Sunshine mine disaster caused postponement. Currently plans are going ahead for meeting of this nature in Lewiston, Idaho, on May 10–11, 1973.

Presented testimony, as a group, before the education committees of the Idaho legislature in behalf of vocational education needs in Idaho.

Co-sponsored with the Montana and Wyoming advisory councils on vocational education, an evaluation workshop for advisory council members and executive officers for the Western States.

Visited Idaho's area vocational schools and reviewed with the administrators and faculty members the programs and needs. Also, visited 25 high schools to review and discuss vocational education offering and community needs regarding vocation-technical programs.

Served with members of the State department of vocational education staff on an evaluation team in evaluating programs in the area vocational schools.

Members of the advisory council have made presentations to civic clubs, schools and industrial groups to discuss, promote and carry on a public relations program for vocational-technical education.

There is a constant struggle, in Idaho, to gain a viable position for vocational-technical education. The State department of higher education, the State department of education, and the State department of vocational education operate as separate entities under the State board of education.

The State superintendent and the State director of higher education sit with the State board at all times. The State director of vocational education presents an agenda and meets with the State Board on a bi-monthly basis. The State board of education, with one or two exceptions, strongly favor the so-called academic education. A bill has passed the State Senate that would help correct this situation but is currently resting with the House Education Committee.

Legislators, with very few exceptions, state that vocational-technical education is a high priority with them, and most stated this in their campaigns. Now they seem reluctant to appropriate adequate funds to expand vocational-technical programs to provide training for those who desire and need such training for employment.

Currently the area vocational schools are able to serve approximately 25 percent of those applying for entrance.

Federal funding, in Idaho, for vocational-technical education is decreased, State funding is at a minimal level, so we have a continual struggle to provide the vocational-technical training needed for people to be gainfully employed.

The advisory council feels that we must have categorical funding to provide for vocational-technical education in Idaho.

ILLINOIS

1. Council meetings 8— membership 31—average attendance 20.

2. Council has the following standing committees:

Executive Committee: 9 members, 6 meetings.

Legislative Liaison Committee: 6 members, 2 meetings.

Evaluation Committee: 8 members.

a. State Plan Liaison: 6 meetings.

b. Annual Evaluation Report: 3 meetings.

Research & Studies Committee: 7 members, 6 meetings.

3. The advisory council planned and hosted the Governor's symposium, "Investing in People" which was held in Chicago, May 4–5, 1972. Attendance was 350 people—aimed principally at interfacing business, industry, manufacturing, and labor, with educational leadership. Educational attendance was diligently held to a minimum to get business participation.

4. Four of the eight meetings of the council were considered public meetings.

East St. Louis.—disadvantaged—handicapped. 60 attendance (in addition to council membership).

Olney.—rural. 100 participants (in addition to council membership).

Peoria.—In conjunction with the Illinois Vocational Association. 50 participants (in addition to council membership).

Chicago.—"Investing in People" symposium. 350 participants (in addition to council membership).

5. We conducted the following research studies which were planned, contracted and paid for by the council:

a. An analysis of the organization and structure of policy control of education on the State level in Illinois, including vocational evaluation: and the evaluation of the implications of installing a State school board.

b. State-level organizational structure for education in Illinois.

c. A benefit-cost analysis of the occupational-vocational educational personnel: Qualifications, needs, trends. and implications.

e. A report of a study to determine the degree to which the physical facilities currently being used to house approved vocational-technical education programs in Illinois are adequate to meet the needs of handicapped students who wish to enroll.

f. An analysis of process, intent, distribution and effects of priority funding for vocational and technical education in the State of Illinois.

g. Examination of patterns of career training by levels for program and population duplication.

h. Efficiency and efficacy of evaluation activities of the State division of vocational and technical education.

6. In addition, we made contact with all of the Illinois congressional members on a personal basis by a visit to Washington.

7. During the period of March through June we were in almost daily contact with our State legislators and made appearances before the education and legislation committees.

8. The Illinois legislators funded the advisory council $100,000 for fiscal 1972 and again for fiscal year 1973. We are a line item in the budget for fiscal year 1974.

KENTUCKY

1. Held six council meetings.

2. Held six public hearings in six separate regions of the State.

3. Cosponsored six vocational education-industrial seminares in cooperation with the Kentucky Chamber of Commerce which also involved local and regional chambers of commerce, business and industry leaders, and the educational communities.

4. Prepared and distributed the annual evaluation report for fiscal year 1972.

5. Provided consultative services to the State department of education in the writing of the State plan for vocational education.

6. Provided, at the request of the State board of education, consultative services regarding management of vocational education programs, construction of vocational education facilities, and in matters pertaining to the implementation of a new concept in providing educational services to the various educational regions in Kentucky.

7. Gave support and consultative services to the establishment of a comprehensive data system which will be a tremendous asset in the future planning of vocational education programs, services and activities.

8. Supported and provided assistance in the development of regional advisory committees on vocational education in an effort to take planning and evaluation to the "grass roots" level of activity.

9. Sponsored one meeting of all regional advisory committee chairman to open lines of communication, and to develop common goals and activities compatible with the objectives of both the regional committees and the State council.

10. Had representation at national and regional meetings on vocational education and manpower.

11. Participated in numerous meetings held by the regional committees on vocational education across the State, and gave assistance in helping them understand their mission.

12. Served on several advisory committees for special projects in vocational education; participated in evaluation activities; State board of education meetings; and general meetings involving vocational education personnel at State, regional, and local levels.

MARYLAND

This evaluation report comes at the close of an extremely active and productive period for the Maryland State advisory council on vocational technical education; a period in which the organization matured into a friendly force and a constructive influence in matters related to the design and development of vocational technical education programs.

The brief statements below give some indication of the dimensions of the council's interest and involvement in the problems and potentials of vocational technical education in Maryland during fiscal year 1972.

With the Frederick County vocational technical advisory council, the State council sponsored a survey of public attitudes toward vocational technical education in Frederick County conducted by Signey Hollander Associates, a Baltimore-based consulting firm specializing in opinion research. Designed to demonstrate the feasibility and desirability to graduate followup studies, the survey broke new ground in the increasingly important field of accountability and measurement of educational programs. A copy of the summary report is included as appendix D.

The council sponsored and guided a comprehensive study of career guidance in Maryland public schools, prepared by Dr. Nancy Davis, assistant professor, department of psychology, Towson State College. The findings, conclusions and recommendations of the study, first of its kind to be undertaken from without rather than from within the education establishment, have received the endorsements of career guidance specialists of the University of Maryland and the Maryland State Department of Education (SDE). A copy of the summary report is included as appendix E.

A position paper on career education, has been prepared by a council committee, with assistance from the Maryland State department of education and the Maryland State board for community colleges. This paper is awaiting review and revision by the council.

Apart from regular participation in the affairs of the council and professional responsibilities ranging from publishing to plumbing, council members were prominent in a gamut of educational service programs in their respective communities. The list of activities includes membership on county boards of education, boards of trustees of community colleges, local vocational technical educational advisory councils, CAMPS committees, community action agencies, career fairs and education committees of local chambers of commerce.

Council members further expressed their interest in the advancement of vocational technical education in Maryland by attending meetings with the Maryland State board of education and the State board for community colleges, and by taking part in the Governor's Conference on Career Education, the State Department Educator's Conference on Career Education and various conferences and meetings in other States on a variety of subjects related to vocational technical education.

In addition, members visited vocational technical centers, comprehensive high schools, career development projects, community colleges and technical institutes in Maryland, as well as similar centers in Delaware, South Carolina, North Carolina, Texas, and New Jersey. They met also with special vocational education committees and lay groups from Baltimore city and Wicomico, Somerset, Dorchester, Worcester, Harford, Charles, Frederick, Washington, and Baltimore counties, and with groups representing the Chesapeake and Potomac Association of Private Schools, Maryland Vocational Agricultural Teachers Association, Future Farmers of America, University of Maryland, Frostburg State College, Western Maryland College and Bowie State College.

MISSOURI

In arriving at its suggestions, the council has, during the past year, completed five on-site evaluations of programs, conducted five public hearings, heard numerous educational consultants on vocational education, developed and tabulated three questionnaires, studied five special exhibits on vocational education and spent much time in contemplating the appropriate goals to stress. Good accountability and evaluation processes require an almost constant feedback. To add impetus to this notion, the council will continue to stress the recommendations from previous years as well as those made for 1972. Much has been done to begin the restructuring of priorities in education in Missouri. However, much more needs to be done. The philosophy of the council that the schools must educate for living and for making a living lays a foundation for necessary change.

To implement some of the ideas brought out during the evaluation procedures and to offer a guide to the orderly process of change, the council offers these recommendations for the State and local levels (whichever is applicable).

MONTANA

1. Conducted sample survey of secondary and postsecondary students and teachers, principals, and directors.
2. Reviewed legislative needs relating to vocational education and submitted five resolutions to the State board during 1972 on this topic.
3. Cooperatively developed with the office of the superintendent of public instruction a public information project on vocational education.
4. Contributed information to members of the constitutional convention.
5. Met with several individuals of the lay public (students, parents, school board members, businessmen, educators) discussing vocational education.
6. Made formal presentations on vocational education to several different groups.
7. Met several times jointly with the office of the superintendent of public instruction and local vocational education administrators regarding legislation, funding, coordination, communication, and other topics of mutual concern.
8. Conducted three public meetings in different areas of the state on vocational education. The information gained from these meetings was used in the development of this report.
9. Participated in meetings of all postsecondary education administrators to promote cooperative planning and administration of postsecondary education.
10. Invited special interest groups to make presentation to the council on their view of vocational education needs.

11. Reviewed reports on vocational education prepared by the office of the superintendent of public instruction.

12. Studied research reports and statistical data from sources such as: Employment Security Division, Planning and Economic Development Division, Vocational Rehabilitation, Agriculture Education Department at Montana State University, National Advisory Council on Vocational Education, U.S. Office of Education, U.S. Department of Labor, U.S. Congress, Montana Legislature, Montana Economic Study, Governor's Manpower and Economic Research at University of Montana, Montana State Plan for the Administration of Vocational Education, and several reports from other agencies both in and outside the State of Montana.

13. Council staff met regularly with the director and staff of the vocational and occupational component of the office of State superintendent of public instruction discussing activities, ideas and concerns of each group relative to vocational education.

NEBRASKA

Council evaluation studies completed—5.

Evaluation Committee meetings held—5.

Council meetings held: 1-day—5; 2-day—2.

Groups and agencies to which recommendations were addressed in the evaluation report—13 (State board for vocational education, State Board for community technical colleges, State school boards association, vocational teacher education agencies, Nebraska secondary schools, Nebraska postsecondary schools, Nebraska personnel guidance association, State division of vocational education, State department for student personnel services, Nebraska Legislature, legislative education committee, secondary and postsecondary vocational education, comprehensive health planning).

Meetings held with the above groups (exclusive of legislature) for the purpose of implementing recommendations—7.

Conferences with individual legislators on issues involving vocational education—11.

Six copies of a 60-second TV tape for promoting and improving the image of vocational education were prepared. The tape was aired an estimated 148 times during American Vocational Education Week and July and August.

There were over 3,800 copies of the evaluation report disseminated to the following groups: vocational educators, local chambers of commerce, secondary school administrators, secondary and postsecondary guidance counselors, local directors for industrial development, Nebraska Department of Economic Development, Nebraska Council of Occupational Teacher Educators, Nebraska Legislature, Nebraska Associated Press and the Nebraska United Press.

There were over 3,200 copies of the "preparation gap" disseminated to the groups mentioned.

The council coordinated with two secondary schools followup studies of vocational graduates.

There were two official legal public hearings held on vocational education by the council. One was for western Nebraska at North Platte and one for eastern Nebraska at Lincoln.

Vocational education advisory council members are also members on the comprehensive area manpower planning councils. Two members are on the Governor's State Council and one each on the Lincoln and Omaha Area Manpower Councils.

The Nebraska Council hosted the first central States meeting for vocational education advisory councils in Lincoln, Neb. on February 7-8, 1972; 12 councils were in attendance.

The council officially visited six postsecondary institutions as a complete body and numerous secondary vocational departments on the committee on an individual basis.

Two evaluation studies with employer groups on the effectiveness of vocational programs. The employers included a sampling of 103 employers in the industrial area and 53 employers in the business and office areas.

A comprehensive study on the effectiveness of local vocational advisory committees was completed on a 50 percent sampling of secondary schools throughout the State. The findings and recommendations were disseminated in the amount of 300 copies.

NEW YORK

The Advisory Council reorganized this year in order to make itself more effective in its role of participant in planning and evaluating the State program for occupational education. Full Council sessions were reduced in number to five, with a prospect of four in the 1973 fiscal year. This reduction was accomplished with the increase of time to be spent at each session and a greater reliance on work of members in committees and task force activities.

As a result of this reorganization, members indicated an increase in time spent, knowledge acquired and action taken on behalf of occupational education. The following summary of Council meetings and committee sessions is intended to reinforce the positive aspects of the Council's efforts.

Council Meetings

The New York State Advisory Council on Vocational Education held five meetings during fiscal year 1972. These meetings were held in different locations in the State with a central theme for each session. In Syracuse the theme was "Educators' View of Occupational Education." The other places and themes were: Glens Falls—"What Business and Industry Feels is Needed in Occupational Education"; New York City—"The Career Education Situation"; Albany—"The State Plan for Occupational Education"; and in Liberty—"Youth Organizations in Occupational Education."

Not only were the Council sessions organized with a major theme being presented by recognized specialists, but considerable discussion was conducted on topics which included migrant education, urban education, veterans' education, and adult/continuing education: Federal appropriations, occupational education priorities, BOCES funding and Federal revenue sharing; apprenticeships and parent/student involvement in career planning: New York State Commission report on the quality, cost and financing of elementary and secondary education; regional planning and local advisory councils;

and proprietary schools, regents' regislative proposals and the State plan for occupational education.

During the course of these Council meetings, action was taken to set up a legislative review committee. The Council also directed that a communication be prepared and sent to the U.S. Office of Education concerning the expenditure of Federal moneys for federally specified research projects. This communiqué expressed the Council agreement with the principle of research funding but stressed the need for States to use the funds for achievement of State-directed priorities.

The Council voted to focus major attention on the evaluation of guidance and counseling services for occupational education in fiscal year 1972. At the same time, initial staff studies on the services to the handicapped were conducted. Finally, the Council ordered the appointment of a special committee to work with the State Education Department personnel in order to develop appropriate relationship between the State council and the local advisory councils.

A major consideration of the Council for the year was the reporting of deliberations of six task forces. These task forces were: School/union relations; visual presentations; articulation; guidance counseling/job placement; and employer needs. The results of the articulation and guidance counseling task forces resulted in the two studies which were in progress at the time of this report.

The school union relations task force held sessions resulting in the Council approving the appointment of two ad hoc committees—one for upstate and the second for New York City and vicinity. These committees were to consider the most appropriate methods of developing a delivery system between education and unions. The results of the ad hoc committee meetings were to be coordinated and a joint report prepared for the Council in the next fiscal year.

The Council directed the visual presentations task force to continue into the 1973 fiscal year with the objective to develop proposals for appropriate workshops and outline the role of the Council in each. Preliminary indications were presented to the Council by the task force which indicated that educators would be the participants and current educational issues would be the focus of the proposed workshops.

Job placement was a task force assignment that reported to the Council a number of suggestions. In essence, the suggestions were that the overall occupational education program reinforce the place of the teacher in identifying with each student his goals, job placement and the following contacts, and involve the employment services and unions in the joint planning of total student programs.

A task force on the relations of occupational education to employer needs studied the Arthur D. Little report. The report of the task force to the Council was accepted. In summary, the task force industry-education association (B-I-E) with local or regional operating units. The B-I-E would provide a continuing dialogue that would be concerned with relevance of instruction to employment; employer expectations of graduates; placement and followup information and employment data. Another part of the task force report recommended that where local employer needs no longer exist or have declined to such a point that they no longer warrant training expenditures by the local education agency, local programs should be discontinued. Additionally, the task force recommended the same means be established for assisting local education agencies dispose of unused or unneeded machinery and equipment.

The Council accepted an invitation to hold a meeting at the New York Association of VICA (Vocational Industrial Clubs of America) Annual Leadership Conference site and attend special VICA functions. This meeting reinforced the Council's appreciation of occupationally-oriented youth organizations and the quality of individual participation. In a session with VICA members, the Council members discussed a broad range of topics. These students indicated a firm belief in their expanded opportunities because of involvement in VICA; a belief in their increased opportunities because of the occupational education program provided; a belief that the guidance and counseling program was not affecting them positively; and a belief that much effort was needed in providing an accurate image of occupational education to parents.

Committee Sessions

The Council members were engaged in the activities of three major committees. The evaluation and special studies committee spent considerable time preparing the study specifications, interviewing prospective researchers and preparing and presenting reports to the Council. Involvement centered on the Arthur D. Little survey and the initial plans for surveying the needs of the handicapped.

A committee for legislation review was continued from the second year of council activity. Discussions and reports to the council were focused on the National Vocational Education Acts of 1972 and State legislative proposals. A third committee, the State plan committee, spent time interviewing the State education department staff about the State plan for occupational education for 1972. This committee also provided input for the State plan for fiscal 1973. Because of the committee's activity, the council was able to have considerable effect on the latest State plan. Currently, meetings with the division of occupational education planning have been set for 1972–73 so that the council will be assisting in the makeup of the fiscal 1974 plan.

NORTH CAROLINA

Held 4 regular council meetings.

Held numerous meetings of council committees.

Took a 2-day tour of occupational educational programs in several secondary schools, community colleges and technical institutes.

Contracted for 3 evaluation studies for the council.

Visited numerous secondary schools, community college, and technical institutes as individual council members.

Published 2 council special reports: "Learning a Living in North Carolina" and "Involving Citizens and Citizen Groups in Planning and Evaluating Occupational Education Programs."

Conducted 3 regional forums across the state to inform citizens and to give them an opportunity to express views concerning occupational education.

Council members on numerous reaction groups for input to state planning, for example, to react to the report of the State task force on career education.

Prepared and distributed annual evaluation report.

Met with State board of education and State board staffs to review findings and recommendations in annual evaluation report.

Expressed views to congressional delegation on occupational education legislation and funding.

Executive director of council constantly representing council at meetings, planning sessions, evaluation activities, etc.

NORTH DAKOTA

Conducted third annual public meeting at Bismarck, February 17. Appendix B states the questions and suggestions for the improvement of vocational education in our State.

Publication of 3rd annual report for vocational education. This report was made available to over 2,000 people.

Plans are forthcoming for a complete evaluation of vocational education for 1973 in cooperation with the State board for vocational education: Mr. Carrol Burchinal, State director for vocational education, stated in his letter of September 27, 1972:

"Such an evaluation conducted in cooperation with our office would be very helpful in the overall improvement of vocational education. Specifically, it would:

1. Help promote and assist in the identification of unmet needs.
2. Help determine the quality of existing programs.
3. Provide information upon which the statewide planning of vocational-technical education programs can be based and give direction to local programs.
5. Determine whether or not the goals and objectives as contained in the State plan for vocational education are realistic and being accomplished.
6. Provide an opportunity for a cooperative effort for the State advisory council and State board for vocational education to obtain additional information for the required State advisory council annual evaluation report

A brochure is in the making that will inform the people in North Dakota about vocational education. This brochure will be prepared by the council and the State board for vocational education, and will be made available for distribution to the citizens of the state in January 1973.

OHIO

Council members continued to participate extensively in council activities during the third full year of operation. The council held 7 meetings during the year, including a 3-day workshop. The council public meeting was held June 27, after proper publicity through the news media and many house organs. The executive committee met separately 7 times, and 13 subcommittees held a total of 31 meetings. Other meetings attended by Council members included:

American Vocational Association national convention.

Joint meetings of representatives of the National and State councils.

U.S. Office of Education.
The Ohio State Board of Education.
The Ohio Legislature and legislative meetings.
The Ohio Vocational Association.
Vocational youth meetings.
Vocational seminars.
Local vocational functions.
National ad hoc committee meetings to plan joint meetings and other activities.

Council members devoted a total of 366 days to official business. Many additional hours were used in study, the preparation of reports and other matters related to the council and vocational education. Some of the major activities of the council follow:

1. Action regarding the revised State plan for vocational education for fiscal year 1973:

a. Revised plan sent to council members for study prior to the council meeting.

b. Strong emphasis placed vocational education for all youth and adults; and special attention to the disadvantaged and handicapped.

c. Commendation given State staff for simplifying the report and setting time tables for achieving objectives.

d. Revised State plan approved by the advisory council.

2. The council contracted with Miami University (Ohio) for a study, now completed, to secure and analyze reactions of former high school students, dropouts and graduates. Its purpose was to determine:

a. The holding power of schools.

b. The causes for student dropouts.

c. Suggestions for improvement.

3. An informal study made by council members related to the effectiveness of the home economics junior high impact and family life vocational education programs in the inner city areas. Activities included:

a. A panel presentation by coordinators and supervisors who work in the inner city during a council meeting.

b. On-the-site visits by a council sub-committee to study these programs in Cleveland and Dayton.

c. A committee recommendation to the council that additional programs be established and results evaluated.

4. The council contracted with the Ohio State University Research foundation for a study, which is in progress, to determine the allied health manpower requirements in Ohio. An increase in the number of trained people needed in the health service occupations prompted this study. Projections were needed in regard to:

a. The number of trained workers needed.

b. Types of programs needed.

c. The regional locations of the training programs.

5. An informal study was made by council members to determine the need for special services to the disadvantaged and handicapped and how they can be provided. The handicaps may be physical, social, emotional, economic, or mental.

Procedures:

a. Council subcommittee visited:

The Flint, Mich. area.
The Pontiac, Mich. area.
The Jefferson Center, Toledo.
The Penta County Joint Vocational School.

Conclusions:

One student in six (minimum) needs some type of specialized help.

A school of considerable size is needed to provide a large student base and tax base if these services are to be provided economically. Legislation is needed to give authority to schools and to provide finances.

6. The council contracted with Market Opinion Research, a nationally known research organization, for a study now in progress to determine how adequately schools prepare graduates for:

a. First employment.
b. Progress on the job.
c. Need for additional training.
d. Work attitudes.
e. Day-to-day living.

This evaluation will be based upon an analysis of responses to questionnaires completed by:

a. High school graduates.
b. Parents of the graduates.
c. Employers of the graduates.

7. A study of school patterns of organizations designed to provide vocational education, as they exist in comprehensive schools and in joint vocational school districts, is being considered.

Procedure:

a. A council subcommittee considered the matter and recommended further study before making a recommendation.

8. A review of the distribution of materials was made by the council regarding vocational education and activities of the council.

Procedures included:

a. The appointment of a committee to be responsible for distribution.

b. Organization of mailing list to permit selective mailings.

c. An analysis of the major mailings during the year, which included:

500 copies of the 1971 annual report and 30,000 copies of a digest of the report in the form of a brochure.

1,000 copies of a report on 13 public forums held throughout Ohio.

4,000 copies of "Breakthrough," a department publication on vocational education.

2,000 copies of a council education research report—"A Critical Look at the High School by Former Students."

15 issues of the Messenger—a brief news sheet.

4 news releases to 800 daily and weekly newspapers, radio, and television stations, house organs and other publications.

9. A review was made of the career education program in Ohio, including the career motivation program in grades K through 6,

the career orientation program in grades 7 and 8 and the career exploration program in grades 9 and 10.

Procedures:

a. This was thoroughly discussed as the objectives of the 5-year plan were considered.

b. Dr. A. J. Miller, project director of the USOE model I comprehensive career education project, presented to the council an overview of the plan to conduct six model demonstration centers throughout the Nation. A member of the Ohio Council, Dr. Willis Ray, is working with Dr. Miller and reports on objectives and progress to the Council.

c. Council members have visited Ohio centers in operation and have been impressed with their acceptance and results.

d. Council officers attended the Chicago Conference on Career Education called by the U.S. Office of Education.

e. The council is considering a series of statewide conferences on career education, in cooperation with the Ohio State Department of Education.

f. The council is recommending to the Ohio State Board of Education that career education should be promoted, and encouraged through increased funding.

10. The Ohio Council recommended to Dr. Martin Essex, State superintendent of public instruction and the Ohio State Board of Education, that a youth be appointed to the advisory council to represent the vocational youth groups.

a. The Ohio State Board appointed David Branham, immediate past president of the Ohio FFA to represent the youth groups.

b. The Ohio State Board passed a resolution strongly endorsing vocational youth organizations, stating that: Vocational youth organizations should be encouraged as an integral part of vocational education instructional programs in public schools and should complement and encourage instruction. Further, that: Vocational education instructors should be encouraged to promote and serve as advisors of local units of organization.

11. Consideration was given to the use of proprietary schools to provide vocational education through contracts.

Action:

a. Inquiries to other States regarding the use of proprietary schools revealed that comparatively little use is made of them.

b. The Ohio Legislature has made permissive provisions for local schools to contract with proprietary schools for vocational education services not available in the public schools.

c. Proprietary schools, under contract, must meet the same requirements as those required of public schools.

d. Guidelines for the approval of proprietary schools have been developed by the Ohio State Department of Education.

12. The council rules and regulations were amended.

a. The procedure for the election of officers was made more definite.

b. The responsibilities of the chairman, the executive committee and the executive director were defined.

13. A full-time executive director was employed, with adequate office facilities.

a. Warranted by the present extensive program with further expansion a possibility.

b. A number of candidates interviewed.

c. Mr. John Shannon, a teacher, principal, superintendent, and president of a technical college, was selected as he has shown a sincere and continued interest in vocational education. Term of office to begin August 1, 1972.

d. Office location—5900 Sharon Woods Boulevard, Columbus, Ohio 43229.

14. Mandated changes in council membership were made:

a. Terms of six members expired.

b. Custom not to reappoint.

c. Citations for meritorious service presented to:

Mrs. Harold F. Banister.
Dr. Leo Dugan.
Mr. Hugh Frost.
Mr. Jesse Fulton.
Mr. Ray Runser.
Mrs. James Shellabarger.

PENNSYLVANIA

Meetings.—The advisory council conducted six meetings during the year 1972, three of which were public meetings conducted in area vocational schools throughout each of the three divisions of the State, eastern, western and central.

In addition to these general meetings of the council, the executive committee met monthly.

All meetings were well attended and exceptional interest was expressed by the public at those meetings expressly designated for public attendance.

The advisory council membership was well represented at both joint meetings of the national and state advisory councils. The council was also well represented at the American Vocational Association meetings.

Studies.—The council conducted three studies during the year, two of which were contracted to a consulting agency, that of the evaluation of vocational education and a sampling labor market study.

The third study was an inhouse survey of local advisory committees. The intent of this study was to determine status of the use of advisory committees and to encourage their use. One ultimate result of the effort was the mandatory inclusion of advisory groups in the Bureau of Vocational Education Rules and Regulations.

Legislation.—The council supports both national and State legislation which pertained to the betterment of vocational education and went on record to oppose such national administrative action which would not favor vocational education.

Fiscal.—To facilitate the operation of the council in compliance with the law, amendments act 1968, "To function independently of the State board" the council designated a local school board as their fiscal agent. This has expedited the operation of the council and was a major achievement.

RHODE ISLAND

1. *Public Information Campaign.*—In the New England region vocational education is still viewed by many as being appropriate for students who cannot succeed in the traditional academic program. This feeling, although diminishing, persists despite notable advances in facilities and offerings over the past 10 years.

To counteract this negative image the council sponsored a public information campaign. With the aid of the National Advisory Council on Vocational Education and the New England Resource Center for Occupational Education, television and radio spots were produced and informational brochures were written. Local television and radio stations (as a public service), played the spots extensively. The State department of education assigned a staff person to handle inquiries. Through this process hundreds of Rhode Islanders of all ages received more information about the true nature of vocational education and in many cases were referred to suitable programs.

2. *Management Information System.*—Past council reports have decried the lack of manpower data for either planning or evaluation. When the State department of education announced plans to develop a management information system for the entire field of education, the council urged that the vocational education subsystem be built first. The council argued that in view of the annual statewide evaluation it was already undertaking, a workable MIS could be more readily developed for vocational education and this would speed the construction of an overall data structure. The department agreed and invited the council to participate in the planning process. The executive director and the chairman of the evaluation subcommittee worked with department staff and the result is a vocational education MIS nearly ready to be implemented.

3. *Coordination of Continuing Education.*—Continuing education is a fragmented mass of adult programs in local school systems, evening courses at the junior college, university extension and apprenticeship programs. To better serve students on a statewide basis, the State department of education has begun to develop coordination plans through a continuing education task force. In recognition of its key role in the field of vocational education the council was invited to join this planning project. The major contribution of the council has been to keep task force members focused on the essential career education aspect of continuing education in all settings.

4. *Orientation of State Legislature.*—In Rhode Island as in all other States the State constitution gives the State legislature control of education. To inform general assembly members of the shape and growing importance of vocational education in the State, the council initiated a continuing orientation program. Legislators were briefed invidiually and in small groups. They were also advised of the impact on vocational education of certain legislation. Above all they were encouraged to look to the council for continuing informational assistance. One outcome has been the appointment by the Governor of two key legislators to membership on the council.

5. *Support of Career Education.*—Career education came to Rhode Island in 1972. Providence was chosen by the Education Development Center (EDC) of Newton, Mass.—the contractor with the U.S. Office of Education—as the pilot site for research and development model III. The council aided project staff in establishing linkages with key elements of the community—the media, government and education agencies, industry and labor.

At the same time the State department of education launched a major K–12 career education curriculum effort in the East Providence school system. The council, at the department's request, served as one of the major disseminators of public information on the project.

SOUTH DAKOTA

A series of public meetings were held; employers and other interested citizens were provided the opportunity to evaluate employed graduates and project training needs. Meetings were held in the places: Mitchell, S. Dak.; Rapid City, S. Dak.; Sioux Falls, S. Dak.; Springfield, S. Dak.; Sturgis, S. Dak.; Watertown, S. Dak.

The council visited the schools in each of these cities and toured all facilities. All testimony was taped and transcribed. This information is available some of which appears in our evaluation report.

The council developed a position paper on behalf of vocational education. This was presented to the South Dakota Legislative Research Committee in written form as well as a personal presentation at the legislative research hearing.

The council established and maintained a close liaison with the Industrial Development Expansion Agency, local as well as statewide.

A colored slide-tape presentation was developed which projects the vocational training opportunities in South Dakota. (14 minutes, 6 copies.)

A brochure was published which tells the story of vocational education in our State. This is entitled "Something Real." (800 copies)

A 16 mm full-color sound film was developed in news documentary form with indepth reporting of the importance of vocational education. (26 minutes, 8 copies)

Numerous 30 second radio and TV spots were produced and released. Special TV spots were also produced and released which projected the vocational opportunities for returning veterans.

Numerous newspaper articles concerning the activities of the council were published.

A self-evaluation instrument for administrators and instructors of vocational programs were developed and distributed.

The council frequently communicated with senators and representatives of South Dakota, national as well as State level, concerning vocational education legislation.

TEXAS

As the council examined its responsibilities, certain priorities were established: (1) Education of the council; (2) acceptance of the council by citizens and educators; and (3) evaluation of vocational education in the State and presentation of recommendations to the State board for vocational education. It was necessary that (1) and (2) be accomplished to some extent before meaningful attention could be given to (3). The council will continue to give attention to the above priorities while pursuing a next step, (4) examining the multitude of influence upon "development of technical, vocational, and manpower training" and establishing relationships or linkages to support the work of the council in meeting its responsibilities.

The council continues work on responsibilities outlined in Senate bill 261, 61st legislature, which expanded the responsibilities of the State advisory council as envisioned in the Vocational Education Amendments of 1968, U.S. Congress. The second biennial report to the State legislature will be presented in December 1972. Responsibilities of the council were further expanded by the "Education Amendments of 1972," Public Law 92-318. Responsibilities of the council envisioned in Senate bill 261, are summarized broadly in section 3, "to cause to be established a climate conducive to the development of technical, vocational, and manpower training in educational institutions in the State of Texas to meet the needs of industrial and economic development of the State."

Members of the council are recommended by the Governor, appointed by the State board of education and confirmed by the State Senate for 6 year staggered terms. The 21 members of the council annually give over 200 man-days to formal council and committee meetings and hearings. This does not include work done as individual members on council responsibilities, and work with groups and organizations in their areas of the State.

This summary report will not cover many of the detailed responsibilities and activities of the council and staff because the documentation would involve substantial space.

A monthly publication, ACTVE NEWS, is prepared and mailed to approximately 2.500 persons throughout the State. Publications was begun in May 1970.

The following reports have been prepared by the council during fiscal 1971-72:

"Second Annual Report—The Advisory Council for Technical Education in Texas"—September 1971: 4,000 copies, 68 pp.

"A Brochure on the Advisory Council for Technical-Vocational Education in Texas"—October 1971: 1,000 copies, 38 pp.

"Summary of the Second Annual Report"—January 1972; 4,000 copies, 40 pp.

"Third Annual Report to the Governor"—April 1972: 3,000 copies, 28 pp.

"1972 Community Conference Report"—July 1972; 2,000 copies 148 pp.

Numerous staff analyses, working papers, background information data, and other documents have been prepared for use by the council and others.

The advisory council activities include meetings, committee meetings, hearings, and conferences held throughout the State in order to gain as much exposure as practical to the citizens of the State and to provide a forum for technical-vocational education and manpower training.

Some of the institutions, facilities, and programs included on the itinerary of the council are:

Secondary vocational programs; campuses of post secondary institutions offering technical-vocational education programs; colleges and universities with teacher preparation programs; job corps centers; manpower skills centers; Texas medical center, Houston; apprenticeship training program, Houston; a private vocational-technical school, Dallas; industrial and business complex; Texas Department of Corrections.

The advisory council produced, with a grant from the Halliburton Education Foundation, a 16 minute color film, entitled "The Future . . . My Destination," and has distributed 20 copies for utilization throughout the State.

The advisory council produced a 20 minute slide/tape presentation entitled "A Redirected Education System," to give background on the recommendations of the advisory council. Fifty sets are being utilized throughout the State with all groups and organizations.

The advisory council is directed by section 102.24, rules and regulations of the Department of Health, Education, and Welfare, Public Law 90-576, to "provide for not less than one public meeting each year at which the public is given opportunity to express views concerning vocational education."

The council conducted a public hearing on the State plan for vocational education in May 1969, in Austin; cosponsored the Governor's conference for technical-vocation in Austin, March 23-24, 1970, in which over 800 persons participated. During January-February 1971, the advisory council conducted 14 regional hearings throughout the State, involving nearly 2,700 citizens. During January-March 1972, 28 community conferences were conducted throughout the State, involving over 3,000 citizens.

UTAH

The Utah State advisory council for vocational and technical education met 11 times between September 1971, and November 1972. Some 25 recommendations for improvement of vocational education have been made to the State board for vocational education and others during the past two years.

The council conducted an evaluation study of vocational education in the State and distributed 500 copies of this report to the State board for vocational education, the U.S. Office of Education, the local school district superintendents, postsecondary institution presidents, legislators, and other interested persons.

A public relations version of this evaluation study, "Career Education—An Idea Whose Time Has Come," was prepared and 13,000 copies have been distributed. These copies went to many educators, business leaders, legislators, church officials, PTA leaders, employment security office counselors, personnel directors, training directors, service club members, education students, and others.

During the budget session of the Utah Legislature, legislators were given the facts concerning funding for vocational-technical education and were encouraged to support this area of education. Specifically, legislators were urged to increase the funding earmarked for vocational-technical education in the secondary schools from $2.4 million to $3.4 million. The appropriations were, in fact, increased to $3.7 million.

Considerable time was spent in face-to-face contacts with individual legislators discussing and promoting vocational-technical education. Follow-up letters were written to each legislator thanking him for his support.

Five thousand copies of a reprint from the November 1971 issue of American Education, "Marland on Career Education," have been distributed throughout the State, mostly as a handout during talks by advisory council members and at special meetings.

The executive director and chairman of the advisory council have appeared before several local boards of education meetings to promote career and vocational education. Also, several letters and considerable handout material relating to vocational education have been sent to the 40 local school board presidents and the forty local school district superintendents.

Nine regional advisory committee leadership seminars were held throughout the State. The primary purpose of these meetings was to activate, inform and motivate local advisory committees for the 40 school districts, the 88 high schools, and postsecondary area vocational centers. In addition, it was emphasized that career education, preparation for one's life work, should be the central thrust of all education in the State. There were 520 persons who attended and participated in the meetings.

A public relations program to promote interest in vocational-technical education and career education has been carried on by the advisory council. This program includes talks given at high schools, postsecondary institutions, and service clubs. An exhibit on vocational education has been on display at the postsecondary institutions, at several high schools, and at the State fair. Ten thousand copies of a booklet for students, "Happiness is Doing Well what You do Best," was distributed throughout the State, adding to the 20,000 copies which were distributed last year.

The advisory council participated in planning a statewide conference on career education at which approximately 475 persons attended. Participants included district superintendents, postsecondary school presidents, school board presidents and members, vocational directors, teachers, legislators, business leaders, members of both State boards of education, and others.

The advisory council continues to work with the Salt Lake Area Chamber of Commerce, the Utah Manufacturers Association and the Salt Lake Advertising Club in a public relations program to add dignity and prestige to the vocational-technical area.

VERMONT

1. Public Law 90-576 (Vocational Education Amendments of 1968) Section 123(a) requires that the State plan "(10) has been prepared in consultation with the State advisory council for that State:"

The Vermont State Advisory Council State Plan Committee met twice with representatives of the division of vocational-technical education for development of the fiscal year 1973 State plan. Each meeting was reported to total council. Final approval was also given by the whole council.

2. Section 104(b) requires "(3) each State advisory council shall provide for not less than one public meeting each year at which the public is giving opportunity to express views concerning vocational education."

The council had two public meetings during fiscal year 1972, one in Springfield and the other in Randolph.

3. Joint meetings of the council with interested education groups was scheduled to foster cooperative understanding.

(*a*) The council met with the State board of education on two occasions, one for the presentation and discussion of the council's report. This was a full evening work session. The second meeting was in support of the State plan.

(*b*) The council met with two local administrative advisory committees in local area centers.

4. Monthly meetings were held throughout the year at different locations in the secondary schools in an attempt to completely familiarize the council members with the area center concept. Explanations and observations of operating programs enabled the council to relate results of council studies to actual problems in the field.

5. The council believes actual acceptance of the council as an evaluation organization increased greatly during fiscal year 1972. A number of educational organizations requested time on the council's agenda as well as requests for council staff to act as a liaison member with numerous groups to promote understanding.

VIRGINIA

The council held four regular quarterly meetings and one called meeting during the year. (The attendance was excellent and council members attended without compensation other than for travel.) The chairman of the council made at least 20 talks to groups in the State on vocational education and the role of the State advisory council. Materials on vocational education were distributed by the council to education groups, members of the State legislature, citizens' groups, and others during American Vocational Education Week. A public meeting was held at the Scott County Vocational Center in April, with approximately 100 citizens attending. The council also participated in the public hearing conducted by the State board of education on the State plan for vocational education. Two members of the council made 14 on-site visits to vocational schools, including community colleges; other members visited vocational schools located in their communities. A brochure was published describing the establishment, organization, and membership duties and responsibility of the council, and giving biographical data on council members. The brochure received wide distribution. The council, through its five committees, gathered information on vocational education programs and services in the State. This information was used in advising the State board and in the preparation of the annual report. The council presented the annual report to the State Board in an open meeting, and was commended by the board on the report and the work of the council.

The Council assumed a major leadership role in cooperation with Virginia Tech's division of vocational education and the State department of education in holding a credit seminar for vocational education leadership personnel. There were approximately 150 participants in the seminar. Ten outstanding National and State leaders addressed the seminar, including Virginia's first secretary of education.

The Council employed a full-time executive director with duties beginning July 1, 1972. VPI & SU was made fiscal agent for the Council, and the office was moved from Richmond to Blacksburg.

The Council had a significant impact on State legislation for vocational education; there is growing evidence of the high regard in which the Council is held by the State board of education. It has also gained positive visibility with other governmental agencies and education and business leaders at the State and local levels.

For fiscal year 1973, the Council has a very ambitious program of work underway. It includes the following research studies:

1. A study of the availability of vocational education in Virginia.
2. A study of counseling and guidance services in Virginia.
3. A study of vocational and technical education personnel needs in Virginia.

Plans are being made to initiate studies in the areas of finance, citizens' participation, and vocational education for the handicapped. In addition to the research effort, the Council has plans for three structured seminars. There will also be four public hearings, four quarterly meetings, and the establishment of a systematic communications link with advisory councils in each public school district and community college in the State. The Council will continue to work with the State department of education and VPI & SU in their development of a management information system which is a major element in their overall vocational education evaluation project.

The Council plans to invite leaders from business, Government, labor, industry, and education to address them at their meetings so that they will be better informed about vocational education and manpower needs at the State and National levels.

WEST VIRGINIA

Executive Committee Formed

The Council members felt that we could so design our programs to provide a more comprehensive and efficient service to the West Virginia State Department of Education.

We had regularly scheduled Council meetings on a monthly basis. To perform our services more efficiently, the Council supported a move to meet on a bimonthly basis. An Executive Committee was formed to include the Chairman, Vice-chairman, two members and the Executive Director.

The primary responsibility of the Executive Committee is to prepare an agenda for the regularly scheduled council meeting. In addition to this responsibility, the Executive Committee reviews the progress of the Council and studies projects and proposals that the Council may want to consider that will both educate Council members and provide valuable inputs both to our evaluation and to the day-to-day implementation of the State plan.

$35,000 Economic Development Administration Grant

The West Virginia State Advisory Council on Vocational Education was awarded a $35,000 EDA grant to study Vocational facilities and programs in West Virginia. We awarded a contract to Education Systems Resources of Washington, D.C., Charles Consolvo Jr., General Manager.

Our contract outlines the following objectives:

(*a*) An analysis and review of West Virginia's allocation of State, Federal and local resources to the several sectors of the educational system.

(*b*) The ability of State and local systems to support occupational education.

(*c*) The capabilities, flexibility, location and resources of the State's occupational educational programs.

(*d*) The organization and management of the State's occupational education programs.

(*e*) Occupational education in relation to meeting existing and projected industrial and service related industry needs.

(*f*) The legal structure necessary for the establishment of a responsive occupational training system in West Virginia.

(*g*) The administrative and planning machinery and tools necessary for effectively and efficiently coordinating and directing all Federal, State and local occupational training, manpower training programs, and technical programs underway in West Virginia.

Advisory Council Newsletter

The first monthly advisory council newsletter was published in March 1972. The format for this four-page newsletter is to provide a means of publicizing the outstanding vocational education programs throughout the State, to profile the members of the West Virginia Advisory Council, and to focus attention to the emerging trends and directions in education throughout the country.

Not only has distribution reached 1,000 per month, but also so much material of importance needed to be published that the Council supported the recommendation to expand the newsletter to six pages beginning with the August 1972 edition.

Currently, copies of the newsletter are sent to the National Advisory Council, all executive directors of State advisory councils, the Governor's office, U.S. Office of Education, West Virginia legislators, West Virginia State Department of Education, West Virginia Board of Education, county superintendents and vocational directors, local boards of education, newspapers throughout the State, and chambers of commerce.

We have invited, and the State Department of Education is using our newsletter to disseminate information.

Bi-Monthly Council Meetings

In order to familiarize the citizens of West Virginia with advisory council activities, we scheduled open meetings throughout the State. A few of the groups invited to our open meetings include: State Department of Education members, State Board of Education members, West Virginia legislators, local education committee members of the chamber of commerce, county superintendents and vocational directors, and local business and industrial leaders.

We have been encouraged with the attendance of these invited guests and feel that our council receives valuable inputs concerning vocational education. They, in turn, get a better understanding of the council's activities and our determination to improve vocational education throughout West Virginia.

Council Travel

Members of the West Virginia State Advisory Council are encouraged to attend and participate in national and State meetings that will further improve their concept of vocational education. To this end Council members have participated in the U.S. Office of Education regional workshop on career education in Washington, D.C., and the National/State Advisory Council cooperative day of planning in Washington, D.C., and Denver, Colo.

In addition to these meetings, several council members attended a 2-day review of the Skyline Career Center in Dallas, Tex. These activities invariably create enthusiasm in council members for vocational education opportunities to the citizens of West Virginia.

Educational Priorities

The West Virginia advisory council is presently studying the possible implementation of the "Delphi model."

The institute for the future in Middletown, Conn., a prototype of the futurist think tank, is a leader in the design of new forecasting tools. One of these is Delphi—a method largely developed by Dr. Olaf Helmer, the mathematician-philosopher who is one of the founders of the IFF. Delphi attempts to deal with very distant futures by making systematic use of the "intuitive" guesstimates of large numbers of experts. The work on Delphi has led to a further innovation which has special importance in the attempt to prevent future shock by regulating the pace of change. Pioneered by Theodore J. Gordan of the IFF, and called Cross Impact Matrix Analysis, it traces the effect of one innovation on another, making possible, for the first time, anticipatory analysis of complex chains of social, technological, and other occurrences—and the rates at which they are likely to occur.

WYOMING

During fiscal year 1972, the council continued work on responsibilities outlined in the Vocational Amendments of 1968, Public Law 90-576. Those responsibilities were:

1. Advise the State board on the development and policy matters arising in the administration of the State plan . . . including the preparation of long range and annual program plans . . .

2. Evaluate vocational educational programs, services and activities assisted under this title, and publish and distribute the results thereof; and

3. Prepare and submit through the State board to the commissioner and to the national council an annual evaluation report . . . which (i) evaluates the effectiveness of vocational education programs, services, and activities carried out in the year under review in meeting the program objectives set forth in the long range program plan and the annual program plan . . . and (ii) recommends such changes in such programs, services, and activities as may be warranted by the evaluations.

Advisement, evaluation and reporting were three specified roles which the State advisory council was directed by statute to embody in its mission. The following outline covered many of the detailed activities of the council and staff:

a. Prepared and disseminated fiscal year 1971 evaluation report.

b. Conducted five public information meetings—Worland, Rock Springs, Lander, Torrington, and Laramie.

c. Implemented career information program utilizing radio spots and outdoor signs.

d. Participated as third party evaluators of career education exemplary projects at Riverton.

e. Held six regular council meetings and 10 subcommittee meetings. One meeting with Governor Stanley K. Hathaway and two with State Superintendent Robert Schrader.

f. The State plan committee worked with State coordinator of occupational education providing input for the State plan for occupational education.

g. Evaluated and rated occupational education program proposal submitted to SDE for funding.

h. Council member participated on accreditation team appraising community colleges.

The council members visited over 20 school districts throughout the State, gaining a better understanding of existing occupational education programs and offered a summary report of several of the visitations.

D. SUMMARY OF FINDINGS

TO WHAT EXTENT IS VOCATIONAL EDUCATION ACCESSIBLE TO ALL WHO NEED AND DESIRE IT AT THE SECONDARY SCHOOL LEVEL?

ALABAMA

Of the 600 secondary schools (grades 7–12) in the State, 429 (71 percent) offered job-related instruction. Only 400 (67 percent) of the high schools (grades 9–12) offered any type of job-related instruction. Only 11.5 percent of the secondary school students were enrolled in job-related instructional programs.

ARIZONA

Of all students enrolled in secondary schools in Arizona, 36 percent were students in vocational courses; or, of the 143,730 students enrolled in secondary schools in 1972, 51,117 students were involved in vocational education or career education.

The secondary school vocational programs that have received major emphasis include cooperative education programs, programs for the disadvantaged and handicapped, the work-study programs, the multi-school programs in depressed areas, and programs in private proprietary institutions when local educational agencies have requested contracted instruction. During the previous school year, the division of vocational education evaluated 10 high school career and vocational education programs. Department personnel used a written instrument to conduct the evaluation and used the results of these studies to upgrade programs in the ten high schools.

ARKANSAS

Last year, from a total of approximately $150 million appropriated to the Department of Education by the General Assembly only $1.5 million went to vocational education at the secondary level. With only 1 percent of the State's funds available, the division of vocational education cannot be expected to accomplish needed changes in secondary level vocational education. The council urges the State board to seek $5 million during the next sessions of the legislature for secondary school orientation, exploratory, and skill training programs.

With over 20,000 students dropping out of the public school system annually, and about 15,000 graduating from high school or dropping out of college and seeking employment, the council strongly feels we must establish greater equality between the academic and occupational disciplines as rapidly as possible. At the secondary level, in addition to local funds, it costs Arkansas approximately $100 per student per year in extra educational costs to provide students occupational education. But, because occupational education has had and continues to have such low priority, far too many students leave the system without this type of training. Consequently, where the State might have provided basic skill training over a period of 2 years at the secondary level for some $200, it is forced to spend over $1,600 per student at the postsecondary level. It should be noted that the postsecondary schools, however, are presently designed to handle less than 4,000 students.

To resolve some of the major problems inherent in this situation, the council recommends the use of mobile training units for students in grades 7–10, establishment of more area school centers for cooperating school districts, expansion of the vocational agriculture shops to include industry-oriented experiences, and the making of arrangements for the postsecondary area vocational schools to provide skill training to selected high school students.

The council strongly urges expansion of secondary-level occupational training as a first priority of the State board rather than postsecondary schools which are the board's present top priority.

COLORADO

Secondary enrollment in regular vocational programs increased 17 percent to 27,761 students during 1971–72. There are now 37 percent of 11th and 12th grades enrolled in regular vocational programs.

DISTRICT OF COLUMBIA

There has been no significant increase in enrollments in vocational high schools. The five vocational high schools and the skills center serve only 15 percent (2,842) students, with 85 percent (18,886) in comprehensive high schools.

The facilities of the vocational high schools are in need of capital improvement before any additional students can be enrolled. The council also reported that the industrial arts shops in the junior high schools are in a deplorable state.

FLORIDA

It should be pointed out, however, that there are still many unmet needs for vocational education. By conservative estimate, at least 30 percent more high school students need to develop occupational skills, adults need to learn new skills and update old skills, additional disadvantaged and minority group persons need training, and funds are needed to provide essential facilities, especially for secondary schools.

IDAHO

Idaho needs quality occupational training programs on the secondary level. Priorities must be redirected. Most of Idaho's public schools are directed to academic education for the college-bound student. Too many young people feel frustrated because the requirements of the present high school curriculum are not meeting their needs. The present education program of the secondary schools does not provide for the student who will leave school before graduation, or for the student who, because of a variety of reasons, will not and cannot enroll in training courses after he completes high school.

ILLINOIS

Programs at the 22 secondary area vocational centers follow the rather traditional trend exhibited by normal high school programs over the years, i.e., 55 percent of the State and Federal moneys was for industrially oriented occupations, 13 percent for health, and only 10 percent for personal and public service. Yet economic and manpower trends in almost all areas of the State point toward an increased need in the personal, public service, and health occupations.

To date there is no plan for statewide area center development based on either individual or occupational needs. There seems to be minimal State direction toward development of secondary area centers which best meet the needs of the citizens of Illinois. The State office emphasizes construction of a facility rather than implementation of a concept.

KANSAS

Secondary Programs

A study conducted by the guidance and pupil personnel section of the State department of education indicates that approximately 20 percent of the high school students enter the labor market directly after graduation.

In 1971–72 the high schools in Kansas had an enrollment of 113,380 in grades 10 through 12. Twenty percent of this enrollment is 22,676 students who will go to work at the end of the 12th grade. The State plan for vocational education in 1972 projects an enrollment of 28,930 students in 639 secondary programs.

Not all vocational students will enter the labor market directly after graduation. Many will continue their education at an area vocational-technical school, a community college or an institution of higher education. Some of the girls will marry and drop out of the work force. A comparison of these data suggests that the projected enrollment for secondary students is adequate but not necessarily excessive.

KENTUCKY

Studies conducted by vocational education personnel in various regions of the State, particularly region X (Ashland) and region VII (northern Kentucky) showed a strong interest among high school students to enter vocational education programs if they were available. The northern Kentucky survey also showed 34 percent of 16,637 (5,643) high school students were undecided in their plans after high school. However, the same survey showed 62 percent (10,202) of the same students would be interested in vocational education if programs were made available to them.

Public school superintendents have expressed strong needs for vocational education for secondary students but the need for vocational training at the postsecondary and adult levels is equally as strong and must also be mentioned and stressed.

It is common knowledge that the demands of employers for skilled and semiskilled manpower have placed new burdens on the shoulders of vocational education and manpower development programs to produce the supply. This entails not only preparing people to enter the labor market, but also in retraining those who become unemployed due to technology and change. Manpower data shows this to be particularly true in the mining industry and in agricultural employment. Manpower needs projections have consistently projected a declining need in these two areas of employment. The demand to retrain, which includes preparing the previously employed for new jobs, has been tremendous over the past years. Enormous sums have been spent on low achievers. With others the problem may be a lack of transportation, lack of communicative and social skills, little or no knowledge of present employability services, or the demands of employers while searching for and holding jobs.

Public school administrators across Kentucky, as evidenced in public hearings on vocational education and in appearances before the State board of education, are asking for more vocational education units, more facilities, and are stressing the need to provide vocational education programs to students at a much earlier age in order to strengthen the school's holding power. Expressions are made to develop a curriculum more relevant to the needs and interests of students, and to offer programs that would lead to employment upon graduation from high school. There were 87,872 (42 percent) of the secondary school enrollment, enrolled in a vocational education program in 1971; 61.3 percent of the secondary vocational education students could be found in home economics (useful) and agriculture—training which is generally associated with nonlabor market occupations. Kentucky had 209,645 high school students enrolled in 1971. There were 34,089 (16 percent) enrolled in vocational programs designed and generally interpreted to develop salable skills which lead to employment upon high school graduation. The remaining 84 percent were locked in to the traditional college preparatory or general curriculum which is so common throughout the secondary educational system in Kentucky and the Nation.

Statistics[1] show that only 43 percent of Kentucky's high school graduates plan to attend college, and only 29 percent of ninth graders plan to attend college (1969). Sixty-eight percent of ninth graders (1969) on the average complete high school and the range of completion among public school districts (1969) ranges from a high of 100 percent to a low of 43 percent. With the statistics presented here coupled with the universe of need for manpower development services to serve as constant reminders, it is little wonder that vocational education has received the degree of attention it has over the past decade.

The need for, and the needs of, vocational education at all levels of instruction have been recognized, identified, and substantiated by studies, surveys, and activities of groups concerned with the promotion and improvement of vocational education. Great assistance in this effort has been rendered by regional advisory councils for vocational education. Through the combined efforts of the State advisory council, regional advisory councils, department of education personnel, bureau of vocational education, and regional vocational education personnel, and professional and lay citizens, a long list of needs which require immediate and future attention have been brought into focus. Those which appear to be most common and which received the lion's share of attention during fiscal year 1972 are:

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[1] *Kentucky Handbook for Planning and Evaluation Local Vocational Education Programs*, February, 1971.

1. The need for additional vocational education units and facilities.
2. The need to utilize fully existing vocational school facilities and resources and teachers.
3. The need to strengthen occupational guidance services.

Without going into an indepth study of the utilization of vocational schools, primarily extension centers, a cursory examination revealed that, while many of the schools are being used well in terms of enrollment—matching, or exceeding the number of available training stations, many schools show their enrollment to be well below the number of training stations available. The examination further revealed that, among the extension centers which are not being fully utilized, many showed no postsecondary students, and limited their programs to secondary students only. Some schools, however, enroll substantial numbers of postsecondary students.

The council is of the opinion that the present utilization of vocational facilities points to divergent views among local administrators concerning who should be enrolled in programs. While some have opened the doors of extension centers to out-of-school youth, and perhaps adults, to fill vacant training stations, others, it appears, have not.

The policy of admittance to State-operated vocational schools adopted by the State board of education, March meeting, 1971, needs to be interpreted to local school administrators, and well publicized to the public with emphasis placed on fully utilizing vocational schools within the limits of financial and personal resources and restraints.

Opening doors to extension centers for greater use for postsecondary job preparatory purposes would, in addition to serving more people, serve as a means to help alleviate the problems many area schools are experiencing in having to put potential students on waiting lists to enroll in programs that are offered in the extension centers. In many cases, it would mean a considerable saving in both time and expense for students.

There has been some discussion over the past year of experimenting with shortening the traditional 3-hour block of instructional time scheduled for secondary students enrolled in extension center programs to a 2-hour block. We feel that such an experiment should be conducted in vocational schools where travel would not be a factor and that, perhaps, a 2-hour block may prove to be effective at the secondary level. If successful, it would result in serving 33⅓ percent more secondary students in a given extension center without additional construction or personnel.

Teacher scheduling should also be examined, particularly the use of teachers in extension centers during the summer months. At the present time, most extension centers are not fully utilized for almost 3 months of the year. There needs to be more effort made to offer short courses to adults and postsecondary students during regular school hours. To permit vocational facilities to lay idle for the summer months is a waste, particularly when teachers are employed for 12 months at each of the centers, and the demand for skilled manpower is so great.

Enrollment increased at all levels of instruction during the past year: Secondary, from 87,872 to 99,169 for a 13 percent increase; postsecondary from 9,308 to 12,844 for a 38 percent increase; adult from 48,154 to 52,856 for a 10 percent increase.

The greatest numerical growth occurred in secondary programs (11,297); the greatest growth in percentage occurred in postsecondary programs (38 percent). In spite of the numerical growth at all levels of instruction, there has been very little change in terms of the percentage of enrollment associated with the levl of instruction during the past year. For example, in fiscal year 1971, secondary enrollment accounted for 60.46 percent of the total, while in fiscal year 1972, it accounted for 60.15 percent; postsecondary enrollment accounted for 6.4 percent of the total in fiscal year 1971 and for 7.79 percent in fiscal year 1972; adult enrollment accounted for 33.13 percent of the total in fiscal year 1971 compared with 32.05 percent in fiscal year 1972.

The main emphasis in vocational education in Kentucky continues to be at the secondary level.

LOUISIANA

Secondary enrollments for fiscal year 1972 show that over 50 percent of students in secondary schools are enrolled in vocational programs. This is highly commendable; however, if the enrollments are analyzed, it is seen that approximately 40 percent are in general home economics. This leaves about 60 percent of the enrollment in occupationally oriented programs. This analysis is not to depreciate the need for home economics but rather to place in perspective the numbers being trained for the labor market.

Consideration, however, should be given to program improvement and expansion. Some interesting new developments are of note. Two programs in practical nursing have been initiated on the secondary level, partially filling a void that has existed in health occupations. What is being considered as the largest single employer cluster within the next decade might surely receive additional support on the secondary level.

The enrollment increases in the area of trades and industry lend credence to the fact that vocational educators have their sights set on the demand of the labor market.

In summary, while students have been enrolled in substantial numbers in vocational programs on the secondary level in Louisiana, the opportunities for occupational education for youth must be increased and further strengthened by new program development and implementation. Louisiana's changing work force deserves and demands this sort of attention.

As additional evidence of the need to expand secondary vocational and technical education programs, a recent study showed that 42 of the 60 responding parish superintendents felt that the need for more vocational education in their parishes was critical, while the remaining 18 saw it as a moderate need.

MARYLAND

Enrollment increases were common to all categories except apprenticeship programs. Significantly, 38.4 percent of all secondary school students in grades 10–12 were enrolled in vocational-technical programs as compared with 35.2 percent in the previous year. Enrolees in health occupations and occupational home economics increased by more than 50 percent.

MASSACHUSETTS

Most occupational offerings are within the office occupations, home economics, and distributive education areas. The office occupations cluster is by far the largest and appropriate in view of the continuing openings for clerical and secretarial workers. Distributive education courses are interesting and seem to spark enthusiasm in many students who are not otherwise interested in school.

There is a great shortage of training for the world of work in Massachusetts at all levels although the need of the secondary level is the most acute and requires the most effort to correct.

MICHIGAN

Partially used vocational education facilities and instructors are common across the State. Program comprehensiveness is inadequate in most small districts, and frequently in these districts, the limited number of vocational education programs offered are glutted with students lacking a realistic occupational objective. Students have enrolled mainly because it is the only alternative to academic subjects. Little or no local leadership is available in many regions of the State for total career education program planning, promotion, coordination, supervision, and evaluation. It is hoped that these problems will be resolved with the implementation of the State department of education's "tentative plan for the development of area vocational education centers in Michigan."

In a study by the institute for research on human resources of the Pennsylvania State University, contracted by the council, it was found that, on the average, vocational costs exceeded nonvocational costs by $95 per student contact hour. However, within vocational programs, there is a wide variation of added costs. For programs in trade and industry, auto service, and agricultural mechanics, the added costs are much higher than $100. These data have been submitted to the State department of education in order to support recommendations for greater funding for vocational educational programs as compared with nonvocational programs.

(Editor's note: In a national study of vocational program costs, (Erick L. Lindman, *Financial Support for Vocational Education in the Public Schools*. Los Angeles: University of California, September 1972), using the annual student contact hour as a base, it was found that, whereas nonvocational programs averaged 74 cents, vocational programs ranged from a low of 92 cents for distributive education to $2.26 for health education. In rank order of cost, with No. 1 as the most expensive, the programs are health, technical, agriculture, trade and industry, home economics, office, and distributive education.)

MISSISSIPPI

In 1971 we had enrolled 23 percent of the school population, or 59,473 students in vocational programs. The State plan projected for fiscal year 1972 an enrollment of 64,362. The annual report on vocational education, prepared for the U.S. Office of Education, showed an actual enrollment of 63,543 students. This is 28.66 percent of the total school population enrolled in secondary vocational education. The actual vocational education enrollment in fiscal year 1972 was 819 students less than the 64,362 students projected.

In a continuous effort to meet the needs of secondary school populations, 1,453 programs were projected. As the school year drew to a close, official records showed that 1,455 programs actually operated. To meet the desires and needs of various communities, seven additional vocational complexes began operating September 1, 1972. This brings the total to 36 complexes now in operation. This is very indicative of the popularity of vocational education in Mississippi. There is not a week that goes by without requests being made by local school officials about the feasibility of securing a vocational complex for their county or counties. However, due to limited funding, many of these requests must be declined. It is hoped that, in the very near future, access to more funds will be a reality. In the event this happens, we will see many additional comprehensive vocational complexes constructed in our State.

Nine of the fifteen sample school districts were designated as area vocational schools. Two additional school districts sent some students to area vocational schools to get vocational education instruction. One of the fifteen school districts offered only agriculture and home economics. Five districts offered programs in only three services, such as agriculture, distributive education, home economics, etc. Five offered programs in four vocational services, and four offered programs in five or more vocational services. It seems that 11 of the 15 districts should consider broadening their vocational education offerings to more adequately meet the needs of students.

MISSOURI

Vocational programs are offered in 368 secondary school districts; of these, 267 offer three or fewer courses. While enrollment shows steady growth, if enrollment in consumer home economics is deducted, the growth is not nearly what it should be. While the council agrees to the need for such schools, the State Department was asked not to further designate area vocational schools at the secondary level until the Missouri Occupational Training Information System is functional. The data to be made available by this system is considered by the council as being basic to any planning for such schools. The council also urged the State Department to adopt specifically recommended criteria to be used in establishing area vocational schools.

MONTANA

The largest increase in vocational education opportunities took place at the secondary level. A new high of 120 high schools offered some vocational education to their students this past year, with an enrollment increase of 4,586 students. However, 43 high schools either offered no vocational education, or sent students to schools that did.

NORTH CAROLINA

A status study made for the council revealed that a large number of secondary school students would like to have been involved in occupational education programs, but that a program meeting their needs and interests was not available in their schools. Thus, there still remains a gap between State goals and implementation in the classrooms of the State.

We are concerned that the timing of the development o fthe State plan, approval by the State Board of Education and the United States Office of Education, and distribution to practitioners in field have not allowed local educational agencies to consider the State Board's goals and objectives in local planning.

PENNSYLVANIA

Secondary vocational education graduates are in the least favorable position in relation to the output of postsecondary and adult programs, insofar as the choice of jobs and employment in general, are concerned. In this respect, it cannot be considered desirable to allow this degree of slippage at the secondary level because of the certainty that the longer a youth is unemployed or working in a nonrelated field, the more likely he will have lost the skill for which he was trained. For the State this means the additional cost of retraining and or lower tax revenues through the lower earnings potential of an underutilized worker; for industry, loss of production skills can eventually result in a loss of competition advantage.

An appropriate example of this from the data analyzed is the fact that 1971 technical education program graduates represented a large oversupply in relation to labor market demand. As a consequence, followup information reveals that this group experienced the highest incidence of placements in nonrelated fields of any program. This outcome represents a relatively large waste of training funds inasmuch as technical programs, by and large, are more expensive to run than most other vocational programs. Noting the other side of the coin, the technical group also experienced the second lowest unemployment rate of the secondary program.

In effect, the relatively expensive training of this group could be considered as a subsidy to employers, since most of this technical group was probably working in jobs in which their skill and education were underutilized.

While it is recognized that the degree of unemployment in the State of Pennsylvania during latter 1970 and in 1971 may have had some effect on the numbers entering their field of training, it is doubtful that the impact would have been as great as that indicated. Because parental, brother-sister, other relatives, and friends have so much influence in the first choice of vocational fields for students, it seems reasonable that without adequate and up-to-date information about certain fields, students could be misguided into entering fields for which they are not really prepared or for which realistic job opportunities are just not available.

The State board of vocational education should recommend continued expansion of vocational guidance services, orientation programs about vocational opportunities for parents, and increased placement facilities for vocational graduates, in order to assist in raising the number of graduates who gain employment in the field for which they are trained. At the same time, it is our belief that correct, up-to-date, and reliable information about job opportunities, working conditions, rates of pay, etc. available to vocational guidance personnel will increase the degree of influence that vocational school personnel have on students when they choose their vocational field of endeavor.

RHODE ISLAND

Six regional secondary school facilities were in operation during fiscal 1972. Five of them—Newport, East Providence, Providence, Coventry, and Chariho, are joined to comprehensive high schools. This enabled students to take vocational training in the area facility while pursuing other courses with the remainder of the student body. The sixth, the William M. Davies Vocational School in Lincoln opened in September 1971. A seventh area school was scheduled to open in Warwick in September 1972. The State board of regents also approved funds (from a 1971 bond issue) for new construction or expansion: $2.5 million and $2.2 million for area facilities in Woonsocket and Cranston, respectively; $1 million for expansion in East Providence; and $500,000 for an addition to the Chariho facility. In the previous year expansion funds had been allocated to Newport ($750,000) and Coventry ($525,000).

Each of the area facilities is designed to serve a representative student population from the community in which it is located plus designated nearby cities and towns. The vocational facilities, therefore, were designed to serve a region of the State. They have not yet realized this objective, however. In most cases, except the Davies School, the percentage of students from the immediate community was disproportionatly high when compared with the region as a whole. These percentages were: Chariho—54 percent; Newport—71 percent; Coventry—72 percent; East Providence—76 percent; and Providence—97.8 percent.

What this amounts to are regional facilities serving single school systems for the most part. There are reasons for such imbalance. Among them are: student disinterest in leaving hometown schools and friends; travel requirements; and lack of information by both parents and youngsters. The first two of these reflect attitudes which may change when present area facility students return home with success stories. The last one, however—the information gap—is largely the responsibility of educators. There are indications that school administrators and counselors have not conducted aggressive public information campaigns concerning the area schools—at least not at the same level of effort as orientation connected with established comprehensive high school programs.

Interest in vocational education continued to rise during fiscal 1972. At the secondary level, enrollment exceeded the goal set in the July 1, 1971 State plan. Public secondary school students in vocational-technical education numbered 13,250, or 33 percent of the grade 10 through 12 total. This increase was made possible by the opening in September 1971, of the William M. Davies Vocational-Technical School in Lincoln, and by the use of mini-grants to supplement the area school programs.

The minigrant, a 1-year award of up to $3,000, was made by the State department of education to local educational agencies in order to encourage program development in areas of unmet need. Grants were used to meet the following objectives: to provide training not found in area vocational-technical schools; to lower dropout rates among youth; and to address specialized vocational needs such as consumer education, techniques of modular building, and K–12 career education.

SOUTH CAROLINA

In the 1971 report of the Advisory Council on Vocational and Technical Education, it was reported that there were "24 centers in operation, with 5 additional centers in the construction stage." These proceeded on schedule, because by completion of the 1972 school year, there were 29 area vocational centers in operation, with several additional centers in the construction stage.

The importance of area vocational centers should not be minimized in offering adequate vocational education choices to the secondary school students. In this age, it is simply not realistic to offer a student a choice of whether or not to take a vocational program, unless there is a variety of courses from which to choose. The probability of any one program's adequately meeting the capabilities, interests and desires of the student is remote. Therefore, the area vocational center with its multiplicity of course offerings becomes extremely important.

According to the available data, during the 1971 school year only one out of three students had an opportunity to have access to the variety of course offerings provided at an area vocational center. By the end of the 1972 school year, the percentage of students with access to an area vocational center had increased to almost one out of two students. The increase was from 32 percent to 46 percent, a significant amount of progress.

Much still remains to be done. As can be seen, slightly over half of all the 9th through 12th grade students in the South Carolina Public Schools still do not have access to an area vocational center.

Many of the area vocational centers are compelled to rely on quotas, and in some cases the secondary schools that are theoretically included as participating with an area vocational center are excessively distant from the center, which requires extreme travel time. The net result is that the students are discouraged from participating. In a few cases the administrative or teaching staff at these schools may even discourage the students from participating due to the cost of travel and the time involved. The great limitation to providing adequate opportunities still remains financial. The requests for funds to construct area vocational centers and for expansion of existing area vocational centers far exceeds the available Federal and State funds. More financial assistance is still needed.

SOUTH DAKOTA

The State is currently experimenting with the establishment of multidistrict vocational centers for secondary school students. The local school districts bus their students to the vocational center for 2-hour blocks of vocational instruction from distances as far as 35 miles. These experimental programs are sufficiently successful in terms of both services provided and low costs involved to have generated considerable enthusiasm throughout the State. To provide these multi-district vocational centers on a permanent basis throughout the State will require enabling State legislation.

TENNESSEE

Twenty of the 95 counties in the State offer their students a choice of only two vocational-technical programs. Twenty-three of the counties offer three or four vocational-technical programs. Sixteen counties offer five or six choices. Thirteen counties offer students between 10 and 13 program slections.

During the school year, 60 percent of all the students in publicly-supported secondary school vocational-technical programs are female. However, when the program area of consumer and homemaking is not considered, the percentage is reduced to 29 percent females.

UTAH

Utah's secondary students can attain a possible 18 units of credit during the 10th, 11th, and 12th grades. Fifteen units are needed for high school graduation. Of the 18 units, 8½ are required classes and the student then has 9½ elective units from which to choose. Many students feel that the 9½ elective units do not allow them enough choice to take the vocational classes in which they have an interest.

Lack of interest among students, lack of sufficient variety of vocational offerings, scheduling problems, or a combination of the above, are such that of some 60,000 high school students who took vocational education classes during their 3 years in high school, 85 percent took only one class, 12 percent took two classes, and only 3 percent took three classes. It is felt that unless a student takes three classes, there is some question as to whether or not he is really a vocational education student.

A sizeable group of teachers, administrators, and students completed a questionnaire concerning trade and industrial courses. Most of the teachers and administrators felt that T. & I. classes were, for the most part, skill and job-oriented; but most of the students felt that the T. & I. classes were not. There may have been some misunderstanding concerning the terms involved, but the differences between the students and the teachers and administrators were substantial. Further, just over 50 percent of the teachers, and just over 40 percent of the administrators and students felt that trade and industrial programs were mostly directed toward in-depth preparation of the students for specific job placement or for still more advanced vocational training.

In a survey of high school graduates, over 40 percent stated that a major factor in their having difficulty in obtaining employment was that school course offerings do not correspond with job opportunities in the labor market.

PUERTO RICO

One of the indicators used by the advisory council to determine how the vocational programs are meeting the students' needs is by analyzing the results of followup studies of vocational school graduates. These studies offer valuable information in relation to the occupational status of the students completing training in the different vocational areas, and serve as an index of the occupational demand and acceptance of the graduates by industry. They also hint of the economic effectiveness of training to different target population and instructional levels.

During the current year, the research unit of the vocational and technical education program made a study concerning the graduates of 1970–71. They were contacted 6 months after finishing training. The response was not as satisfactory as expected. In the secondary level the response in all areas was 44 percent, in the postsecondary level it was 20 percent, and in the adult level it was almost insignificant (8 percent). The research unit is trying to determine the causes for this low response, as compared with a similar study made during the year 1968–69 when the response was 69 percent.

With these limitations, the advisory council analyzed the information obtained. The results may be summarized as follows:

1. In the secondary level, out of 8,702 graduates in 1970–71, only 15 percent were employed in the occupation for which they were trained; 24 percent were working in a related occupation, and 51 percent were still looking for a job 6 months after finishing their training. It is significant to point out that all occupational training programs had around 30 percent of employment, with the exception of occupational home economics, where employment was very low (7 percent). Employment in agricultural work was nothing (0 percent).

TO WHAT EXTENT ARE LABOR MARKET AND ECONOMIC DEVELOPMENT MANPOWER NEEDS PROJECTIONS AND OTHER DEMOGRAPHIC DATA UTILIZED IN PLANNING FOR VOCATIONAL AND TECHNICAL EDUCATION?

ARIZONA

An abundance of valid data is available for determining programs in vocational education. However, most secondary schools are not equipped with the people to interpret this information into viable vocational educational programs. Certain aspects of vocational education do rely heavily upon manpower data for their training needs, such as the MDT department of the division of vocational education. The secondary and postsecondary schools use this information little, however, because it is not directly convertible into data that can be used by the administrators of the schools.

School administrators and vocational education administrators reported that each particular school serves the needs of the school service area and knows the need far better than any data gathering and dissemination agency.

CALIFORNIA

A joint occupational preparation task force has been established by the Governor's Office—composed of representatives of the Department of human resources development and the department of education—to coordinate efforts to develop labor market data and projections of future manpower needs.

The Council is concerned that HRD will not be effective unless the Department of Labor provides necessary funds. The Council also recommends manpower data input directly from industry. The Council is prepared to assist the occupational preparation task force prepare a position paper supporting the specific recommendations of the Governor's manower policy task force concerning the need for a comprehensive economic and manpower data center.

FLORIDA

The management information system for vocational, technical and adult education has been developed and partially implemented by the office of program services, division of vocational, technical and adult education. The lack of resources made the project difficult; however, there are very few states which have made equal progress. Additionally, because the majority of the planning has taken place at the state level, there has been an inadequate amount of involvement of persons from the local vocational-technical education centers and counties in addition to persons outside of the educational system. One of the shortcomings of the enrollment system is the lack of linkage with industry and employment offices. Perhaps if the planning of design and implementation were more participatory in nature, the system would not be as isolated as it appears to be. However, some of this isolation may be reduced as the student placement and followup subsystem is developed.

At this point in development, "management" has not been provided with timely, relevant information for decisionmaking, especially at the local agency level. The data which is available to the local vocational education centers and counties is inadequate to effect decisionmaking or to fully evaluate programs and provides a minimum of information on which to base projections in planning future programs.

There is no evidence available to refute the apparent lack of effectiveness measures which should be a part of a supporting MIS. The analysis of data in regard to considering alternative strategies in meeting the objectives of the vocational, technical, and adult education programs has been treated lightly. Additionally, there is no planned program to further the competency of local administrators in analyzing data received. In fact, a major shortcoming of the project is the lack of a long range implementation plans as evidenced by the dubious implementation date for the fiscal subsystem.

The Office of Program Services has put forth considerable effort in developing the enrollment system. Their efforts should be noted since the system is far ahead of most statewide programs. The aforementioned shortcomings of the enrollment system are not intended as criticism, but as observations of an analysis for the purpose of improving the system.

GEORGIA

A number of State agencies are involved in manpower development and training and yet there is no consolidated state-wide information system providing supporting data. Without such information to serve as a basis for planning, intelligent management decisions in vocational-technical education, as well as in manpower development, cannot be made.

IDAHO

The advisory council finds that valid data pertaining to job opportunities and manpower needs are available, but must be obtained from a variety of sources. The Department of Vocational Education compiles data from the State Department of Employment, State Department of Education, State Department of Commerce and Development, State Department of Vocational Rehabilitation, Idaho Cooperative Manpower Plan, State Department of Social and Rehabilitative Service, and many more.

Follow-up data on high school graduates and high school students who terminate their schooling prior to graduation is rather sketchy and incomplete. However, some steps are being taken to correct this situation.

While data is available from a variety of sources, there is a need for the development of procedures in collecting, compiling and disseminating such data to insure its most efficient and effective use in planning and evaluation of occupational education programs.

The advisory council has again recommended that necessary steps be taken to adequately staff the State Department of Vocational Education to insure planning and evaluation of all occupational programs.

Inadequate funding, public attitudes, population distribution, and geographic barriers are but a few of the obstacles that confront the several agencies in the State in providing occupational training opportunities to the various populations.

The advisory council finds that Idaho is fortunate in having agency administrators who are interested in people and recognize the necessity for combining their resources and expertise in providing training opportunities.

Agencies, such as Area Manpower Planning, Manpower Development and Training, Area Manpower Institute for Development of Staff, Department of Employment, Bureau of Indian Affairs, Human Resource Development, Department of Vocational Rehabilitation, Department of Education, Department of Rehabilitative and Social Services, and the Department of Vocational Education, along with the local education agencies have, in various degrees, provided funds and/or facilities, furnished expertise, and worked cooperatively to establish, administer, and conduct programs in many Idaho communities.

The advisory council fully realizes that present programs need to be expanded, new occupational training facilities must be constructed, and programs initiated in other geographic areas, if all people who desire and need occupational education are to be served.

ILLINOIS

Illinois is transforming itself from a goods-producing to a service-producing economy. Yet in the distribution of funds, and the programs of the vocational education system, this shift in manpower needs has had little impact.

The council believes that the availability and use of valid economic and manpower data is one of the most critical needs of the State before efficient planning and management of the education system can be attained.

The Governor has established a manpower policy board, supplemented by a manpower planning board in the executive branch. The council believes that these boards indicate realistic prospects for the development of a meaningful manpower policy.

KANSAS

To evaluate the State's goals and priorities as set forth in the State plan for vocational education, comparisons were made between the goals and priorities as planned and the actual achievements of the division of vocational education during fiscal year 1972.

In regard to the validity of the State's goals and objectives in terms of student needs and employment opportunities, the number of programs in which expansions were planned or new programs projected, was compared with the net manpower needs of the State in the particular occupation involved.

From the K-MUST (Kansas Manpower Utilization System for Training) the 10 occupations showing the greatest excess of manpower in the State and the 10 occupations showing the greatest demand for new employees were selected. The new programs to be implemented and the expansions planned in existing programs were selected from part III (annual program plan) of the State plan for vocational education.

This approach is obviously unfair to the educational planners in the division of vocational education. The goals and priorities as set forth in the State plan were developed in the spring of 1971. The K-MUST study was not available until January of 1972 .The manpower analysis of the K-MUST study showed annual estimated job openings and the annual input from various manpower sources. In some cases, this annual input exceeded the annual demand thus changing a demand for manpower to an excess. In effect, planning done with relatively crude data is being compared with the somewhat more sophisticated data of the K-MUST study. This emphasizes the need for more accurate manpower data upon which to base educational planning. The continued refinement and upgrading of the K-MUST study should receive high priority in the research activities of the division of vocational education.

In reply to the question, "Were the State's goals and priorities valid in terms of student needs and employment opportunities?" the answer must be yes or no. They were valid in terms of the information available at the time the goals and priorities were set. They were not valid in terms of the more realistic data available at a later date in that 11 out of 38 or approximately 30 percent of the expansions and new programs planned for these 20 occupations, were in categories showing the highest annual excess of manpower.

The K-MUST manpower analysis includes the manpower input from other sources within the State. The number of persons trained each year in private schools, the bureau of apprenticeship, MDTA, programs in correctional institutions, unemployed, etcetera are included in this report. As this report will be an important factor in establishing the State's goals and priorities in vocational education, these goals and priorities will reflect the influences of these manpower sources outside the public school program of vocational education.

The K-MUST study advisory committee includes representation from economic development, vocational rehabilitation, the division of research and information of the Kansas State Employment Security Division, and the bureau of apprenticeship.

The advisory council for vocational education includes representation from economic development, vocational rehabilitation, and the bureau of apprenticeship and training.

Because these two groups are active and continuing, this representation provides channels through which the State's goals and priorities can be evaluated in terms of the activities of these agencies.

The commissioner of education is a member of the CAMPS group. The director of manpower programs is an alternate and attends the meetings. This representation provides a linkage between

CAMPS and the division of vocational education. CAMPS in Kansas is known as the Governor's Manpower Committee.

The State board of education has a working agreement with the employment security division through which data on manpower trends, needs and other information on the labor market is available to the division of vocational education. The manpower training programs have developed a close working relationship between the employment security division and the division of vocational education.

The program for employee training is new and emerging industries have contributed to a close working relationship between the division of vocational education and the department of economic development.

The extent to which vocational education opportunities are available to all persons was estimated from a variety of data.

In the area vocational technical schools, enrollment data by county were obtained from records of the division of vocational education. These data show a wide distribution of students with representation from every county in the State.

A comparison of the enrollment from the home county and other Kansas counties is shown to vary with type of community and the geographical location of the school. Large urban centers enrolled fewer students from outside their districts. Schools located in the rural areas of the State tended to enroll more out-of-district students. An advisory council study estimates that 72 percent of the high school students in Kansas live within commuting distance (30 miles) of an area vocational technical school. The 14 area schools in Kansas offer approximately 100 different programs.

Similar data were not available on the vocational programs in community colleges. However, community colleges in Kansas subscribe to the "open door" policy and any qualified student in the State may attend with his out-of-district tuition paid by his home county.

KENTUCKY

Kentucky can point with pride to the achievements it has experienced in the past 10 years. Its income has grown considerably making available opportunities to expand and improve education and social programs for its people: modern highways have been constructed to speed the transportation of products and people: recreational facilities have been developed second to none in the Nation; and industrial and general economic growth has shown a steady climb up the scale of progress. It has been a time of innovation and experimentation in an effort to escape the status quo and to improve the social and economic climate of the State. Goods and services are at an all time high in both quality and quantity, and the general standard of living is good

In spite of the progress Kentucky has experienced over the past decade, a close examination of the economic picture over the same period of time brings to light many of the problems Kentucky and hundreds of thousands of her people have experienced: Unemployment, underemployment, poverty, low per capita income, high rate of school withdrawals, low educational achievement, and restless and migratory pockets of her citizens who have left their homes in search of jobs and economic stability.

Many problems have been brought on by the persistently changing economy and the constant demand for new and skilled manpower. The economy has undergone significant growth, and has become more industrialized. Due to declines in employment in certain industries, particularly the mining and agricultural industries, employment is no longer balanced in many regions of the State and unemployment and migration have persisted over the past two decades.

The major portion of jobs now lies in the metropolitan areas of the State, but the demand for trained manpower leaves many jobs unfilled. Therefore, vocational education must be concerned with the continuous process of matching people and jobs. People are continually confronted with preparing themselves for jobs, finding jobs, performing on the job and keeping jobs. Vocational education must be concerned with continuous assessment of manpower demand and manpower supply. When the two are significantly out of balance unemployment and underemployment occur leading to migration in search of economic and social security or to poverty and social welfare support.

Vocational education must, by the nature of its purpose, be concerned with the economic and social development of the people and direct its programs, services, and activities toward promoting self-realization for all the people and to help prepare them for a productive and rewarding life. It must be an integral part of the "total scheme of things" working to satisfy human need, balanced employment, and a sound, growing economy.

Statistics show that during an average month in 1970, there were 61,700 persons unemployed in Kentucky representing 5.1 percent of the total labor force. At the end of 1971, unemployment had reached a level of 71,600 or 5.8 percent of the work force. It was projected to increase during 1972.

The Kentucky Comprehensive Manpower Plan for fiscal year 1973 states:

> "During the fiscal year 1973, an estimated 493,176 different individuals in Kentucky will need some type of manpower service. In fiscal year 1971, employment security offices throughout the State took 185,592 applications for work compared with the universe of need, this represents only 37.6%. The combined efforts of all the manpower agencies have not been sufficient to serve the total need in Kentucky."

Yet jobs go unfilled in several occupations. Kentucky employment security offices within the past year have had openings for jobs in such areas as engineers and draftsmen with specialized backgrounds, nurses, medical technologists, and laboratory assistants, dental technicians, secretaries, programers, computer operators, key punch operators, clerks, sales workers, waiters, cooks, machinists, mechanics and the list goes on. Jobs go unfilled and the list of the unemployed grows larger. The flow into the pool of the unemployed apparently remains unchecked; the pool grows larger.

It appears from the data available for planning purposes that vocational education could choose any one of a number of target groups and devote full time to meeting its needs. When the universe of need is applied to vocational education enrollment, a wide gap emerges.

It has been estimated that during the 1980's and beyond only 20 percent of the jobs will require training at the baccalaureate level or above. The overwhelming manpower demand will be for technicians and semiskilled and skilled chaftsmen which will require 2 years or less preparation in vocational-technical schools, community colleges or other types of postsecondary institutions.

It is quite obvious that vocational educators have relied on highly questionable data and research for planning, implementing, and continuing instructional programs. They have planned and continued programs without the benefit of reliable manpower demand data and manpower supply data. This statement can be easily verified by an examination and comparison of employment opportunities related to vocational education programs (table I, part II of the State plans for fiscal year 1972 and fiscal year 1973).

Programs probably were not directly related to manpower development activities (output) in private schools and industries but were tied in with training sponsored under manpower legislation and with other State agencies. Employment opportunities related to vocational education programs data were used as supporting documentation to justify the operation of instructional programs for fiscal year 1972. Anticipated vocational education output was applied to employment opportunities data, and in no instance did the supply (vocational education output) exceed the demand for job opportunities. An attempt was made to show output from other training sources (private, industry, business); however, the validity of the data is questionable in view of the shortage of each such data for use in writing the fiscal year 1973 State plan. Hopefully, the comprehensive data system, currently under development, will help alleviate this shortcoming.

While the fiscal year 1972 State plan shows a need to continue training in all of the broad instructional areas (OE Codes 01 through 17) a more thorough breakdown of job opportunities related to vocational education instructional programs in the fiscal year 1973 States plan paints a different picture. In many instances, projected vocational education output exceeds projected job opportunities by large margins. For example, projected vocational educational output exceeds projected expansion and replacement needs in food distribution by 253 percent by 1977; drafting by 300 percent in 1973, and 215 percent by 1977; child care services by 220 percent in 1973, and 156 percent in 1977; electrical occupations by 900 percent in 1973, and 800 percent in 1977; machine shop by 170 percent in 1973, and 200 percent in 1977; and welding by 170 percent in 1973 and 171 percent in 1977. There is a total of 13 programs where the projected vocational education output exceeds the projected manpower needs. This represents only a fraction (11 percent of the 140 instructional programs listed; however, it points to a need to closely examine some of the most popular and expensive programs in operation.

Inspite of the findings which allude to overtraining, in isolated instances, projections show the demand for skilled manpower by broad occupational category to be great by 1977.

LOUISIANA

The 1972 Louisiana State plan for the administration of vocational education, part II, includes the work of the State staff in determining labor market needs as a basis for program planning in Louisiana. The staff should be commended for this compilation of data. It is evident that they did secure the cooperation of the Louisiana department of employment security which has a major responsibility in manpower projections and in compiling the information.

It is readily seen that the output from vocational and technical education and other sources falls short of meeting the needs in many of the service areas. This fact was recognized by those developing the plan. The following paragraph, taken from the plan, not only gives strong evidence to this fact, but also suggests that they have given consideration to national projections and trends in manpower.

> Vocational education output in terms of meeting labor market demands is well below total needs. Sources of trained personnel other than vocational education do not materially affect the shortages by occupational categories in labor market expansion and replacement requirements. As noted in the report, "Manpower Requirements Due to Expansion and Replacement for 1970 and 1975", Louisiana will shortly experience changes in its economy beyond that of the country as a whole. Changes in technology are very apt to have pronounced effects on employment and training needs. Economic expansion will undoubtedly make the fullest use of available job classifications with new and emerging occupations becoming important in the planning of vocational education programs to meet employment opportunities. Those occupations with more exacting requirements in training and education will probably show the fastest growth during the 1970–1975 period. The U.S. Department of Labor has indicated that the growth of employment opportunities in the nation requiring skills and technical knowledge will move twice as fast as the overall job openings. It seems probable that this assumption will apply with equal force to Louisiana.

Another evidence of the fact that Louisiana should look toward expansion of its vocational and technical programs is a statement taken from a 1971 study which stated that industry representatives indicated that a lack of a qualified skilled labor force was the greatest deterrent to Louisiana's industrial growth.

While it cannot be assumed that there may not be need for expansion to meet replacement needs in the more employment occupations, it is important to give maximum attention to the growth areas. Also, in areas such as agriculture, the training needed may be quite different from that which has been traditionally provided.

MARYLAND

The division of vocational education indicated that State agencies had expressed satisfaction with existing manpower data and that the U.S. Bureau of Labor Statistics and the National Planning Association had acknowledged Maryland's manpower statistics as *** the best in the country. Nevertheless, among the six resources responding to the council's investigation concerning the validity of the manpower data available for a planning purposes, there was agreement that the need for this data is not being met effectively.

MASSACHUSETTS

The current unemployment rate of 7.4 percent in Massachusetts is higher than the national average of 5.5 percent because of factors primarily associated with the economic climate rather than with student ability or training. Nevertheless, it is believed that more reliable manpower need projections by local area and occupation would prepare people for careers in shortage occupations such as in the allied health field. But even in this field, the statistics are confusing and misleading. For example, in the Boston SMSA there were listed some 1,598 job opportunities during May 1972, as nurse's aid, medical and dental technicians, etcetera. Yet, in the suburbs of Boston, there appears to be a surplus of these people, while such jobs go begging in the inner city. It is believed that many nurses, etcetera, will not work in the inner city because of concern as to safety and lack of adequate public transportation.

The council found some hundreds of different organizations at all levels are involved in various aspects of manpower needs, job opportunities, and employer needs projections. Although expenditures for developing processing and publishing the volumes of planning data are not known, it can be assumed they are quite large. Despite the supply of data, strategic planning and management information are lacking at all levels of Government; particularly so for small area problems and opportunities. The data linkage for effective planning between agencies is at best tenuous and of an ad hoc nature. The new project of the division of occupational education (MISOE) is sophisticated and complex. Whether this system will in fact supply the desired information, or even be workable, remains to be seen. The council finds that in most instances valid data is available; what is missing is the system to pull it all together in order to render it useful. If MISOE proves to be too complex, then a simpler, easier-to-implement system is essential.

The council finds coordinating relationships are generally poor in the public sector, and knowledge of, let alone coordination with, occupational efforts in the private sector is barely discernible. The division of occupational education is making a good effort to relate its efforts to other manpower development in the State, and has been particularly successful in the area of serving handicapped individuals. In other areas of effort, the council finds that vocational education's involvement in the total manpower development program of the State is not as heavy as is warranted by the high statewide employment rate.

MISSISSIPPI

After having looked [illegible]lytically to other manpower developments in the State, it is felt that vocational education relates appropriately, at least to a reasonable degree. Looking first at the position vocational education assumes toward private schools within Mississippi, it is noted that each local plan has a documented statement as follows: "If private school students desire and can profit by entering vocational training, they will be received provided openings are available and the request is made." Students and their needs are given first priority when programs are planned. Local personnel are requested to do local labor surveys, to look at expansion possibilities and to look at the total needs of the community, as well as the needs of the industrial community, before planning and executing new programs. CAMPS data is required as a part of each local plan. It is the opinion that we must have all available data when planning programs that are current, as well as when we are projecting needs 5 years hence. Therefore, data from CAMPS and the employment security commission are fully utilized.

We now have 20 MDTA training facilities operating in Mississippi meeting the needs of numerous unemployed and underemployed adults. The vocational division is working cooperatively with the Department of Education and Training directed by the Governor's office in an attempt to better coordinate and articulate the total effort in meeting the needs in manpoyer programs and their development by bringing together all agencies, both public and private, who are engaged in manpower training. Persons involved in manpower feel there is duplication of effort, as well as a lack of understanding of role and responsibility between the agencies participating in manpower program development. The end result of this endeavor should eradicate duplication, establish new objectives and direction, as well as to clarify roles and responsibilities in program planning for manpower program development.

Mississippi, in the very near future, will be involved in the development of the OTIS information system. Vocational education, as well as the State advisory council, will lend assistance to this effort to every degree possible in the development of this much-needed information system.

MONTANA

Over the past 2 decades the economy in Montana has not expanded fast enough to supply jobs for persons of labor market age. This has forced a large out-migration, particularly of those persons aged 18 to 24. Such a situation makes effective planning for vocational education in Montana very difficult. In spite of the fact that we know many of our vocational students will have to find employment out of State, to our knowledge no information on the regional job market is gathered for use in vocational education planning.

The unemployment rate in Montana is usually 1 percent to 2 percent above the national figure and currently presents a particularly bleak picture. The last figures reported by the employment security division placed Montana unemployment at 6.8 percent, and the report predicted that unemployment would rise to over 10 percent by February of 1973. Such a situation makes it particularly important that students entering vocational education training in Montana be informed of the job possibilities in their chosen area of training both in Montana and in the western region of the country.

Although data are still very sketchy in the area of job opportunities and manpower needs, the situation has been improved. A 5-year projection by the employment service, and other manpower surveys have been available this past year. Other surveys are presently being conducted which will be of further assistance (Agriculture Education Department, Montana State University Agriculture Manpower Study, Bureau of Economic Administration, annual county employment estimate, and statewide employment estimate). A problem that continues to plague the planner as well as the researcher is the different systems of data gathering and accounting which are used by different agencies. A standardized system is sorely needed to increase the usefulness of the data for program planning purposes.

An emerging source of reasonably reliable data for manpower needs planning is being accumulated in the division of planning and economic department by its information systems bureau. This regional economic information system is storing county level data from many sources such as the Employment Security Division, Social Security Administration, and the Internal Revenue Service and can tabulate, analyze and printout the data at a nominal cost.

Since the labor force participation among graduates is less than 100 percent, it is desirable to have the number of people trained exceed the demand. Presently, it appears that vocational education programs at the secondary and postsecondary level are overtraining or oversupplying the job markets in some areas and undersupplying the job market in others. This could be more accurately determined through a research study involving the supply and demand concept in relationship to vocational education training. It appears that at least two variables now make it difficult to match the job supply and demand in the educational training area. The first is the fact that several methods are used to describe and list job openings by education, labor, and industry. The second is that even considering the most valid state and region-wide employment opportunity data available, there is no guarantee that the local education agency will see fit to conduct programs which would balance the supply and demand for workers. Overtraining or undertraining could be the result.

The Montana Manpower Planning Advisory Council now in operation has among its membership the director of vocational and occupational skills and the supervisor of manpower development and training activities from the office of the superintendent of public instruction. Also on the council are three members of the Montana Advisory Council for Vocational Education. A total of five people on the 18-member manpower council have either a direct or indirect involvement in vocational education. This manpower council is the planning agency for various manpower programs including the manpower development programs of vocational education. It includes a cross section of business, management, labor, education, vocational education, and other governmental agencies.

Vocational education administrators are involved in all institutional manpower developmental programs with the exception of some programs which are contracted between private institutions and other organizations. In the case of these contracts, vocational education administrators are not specifically involved and are sometimes unaware of these programs. Vocational education administrators are aware of but not involved in programs like the Job Corps. Little contact apparently is maintained with private vocational education schools within the State. Administrators have little general knowledge of types of programs being offered and the number of anticipated job applicants that will be turned out by the private schools.

It is the real challenge for the State to properly coordinate the multitude of public and private manpower programs and eliminate undue overlap and duplication.

NEVADA

To date, significant progress has not been evident among vocational education agencies toward cooperative planning of manpower development programs. There appears, however, to be an emerging effort upon the part of the community college system to address the situation, particularly as the various terminal programs become accountable to the reality of the job market.

NEW JERSEY

The vocational education system, even without considering the output of other manpower training system, is apparently overproducing graduates in two occupational categories—health and business occupations. However, there seems to be overproduction in other categories as well, as will be noted from the following excerpt from table 1 (page 6 of the Annual Report prepared by Education Systems Resources). Note that there is a considerable underachievement in meeting agricultural occupational needs. This is confirmed by a special study conducted by Rutgers University with funding from the Advisory Council, the State department of agriculture, the division of vocational education, and the State department of labor and industry. A major finding of this study is that there is much more training needed at the 2-year collegiate or technical level to meet the demand for skilled, professional, sales and managerial personnel in the field of natural resources and/or agriculture.

Occupational category	Vocational education projected	Output (1972) actual	Percent difference
Agriculture	978	474	48
Distribution	4,066	4,340	107
Health	2,210	4,384	198
Home economics (gainful)	2,080	3,910	188
Business and office	26,960	47,059	175
Technical	5,067	3,431	68
Trades and industry	8,699	12,326	142

Note.—Compare this with State which calls for 200 percent plus difference from vocational education to take care of those who don't enter the field after graduation.

An additional problem is that there is still some difficulty in establishing an accurate translation of job skills into U.S. Office of Education categories. The division of vocational education is making efforts to minimize these translation problem effects.

NORTH CAROLINA

The base for much of the manpower development program for the State is vocational education. Vocational education personnel at the postsecondary level are involved in many of the programs.

Secondary level vocational education personnel are involved to a lesser extent. The Council encourages more involvement at all levels in comprehensive State planning.

OKLAHOMA

For planning purposes, far more adequate and valid data is available than two years ago, for example, through the occupational training information system (OTIS). Here demand data from employers is matched by supply information from public schools at all levels, from private schools—a recent feature predicated by passage of 1970 legislation requiring private school registration—and through excellent cooperation from the State employment service, OTIS is both an informational and forecasting system. Certainly it is superior to past conditions involving those two factors and has itself greatly improved the past 2 years. There are some weaknesses in the system of which the OTIS staff are well aware and seek to remedy, such as not having all jobs included in projections, identifying regional and state differences; credibility of skill claims by employment service registrants, adequate representation in demand figures for government and services with those of the industrial sector, the more difficult to obtain but valuable indices for on-the-job training toward higher skill levels, thus creating bottom level jobs through upward mobility.

PENNSYLVANIA

Increasing need for occupational education and training and the number of public and private training agencies develops the necessity for acceptance for the administrative responsibility by the State board for vocational education to operate functionally as a manpower education and training planning and coordinating agency. Continued need for implementation of the career education concept and program development also points up the urgency of this recommendation.

Additional activities should be considered by the State board along the lines of coordination and assistance to PIDA. Closer alliance with representatives of the departments of commerce and labor and industry should be sought for continual updating of significant manpower needs in relation to individual development efforts; close working relationships and liaison should be established and continued with the State department of labor, and the regional office of the manpower administration. The State board should initiate actions to develop a working coalition of all agencies, departments, and relevant private organizations which are involved in upgrading and developing the labor supply of Pennsylvania.

Long range plans for future occupational training programs to meet community needs must be considered now, rather than delaying until the actual needs materialize. Projecting identified needs and gearing programs to meet the need are far easier now than when the day of need arrives. Environmental changes over the next few years will undoubtedly require the inclusion of many vocational programs not now even considered.

Current estimates indicate that up to 1980 about 1,376,500 workers will be needed in jobs for which the vocational education system in Pennsylvania trains; or an average of about 137,650 persons annually. Data available at this time, not including private licensed business and trade schools (other than associate degree level), indicate the vocational output from all agencies in Pennsylvania at approximately 87,000 individuals resulting in unmet needs of about 65,000 persons. The public vocational education contribution to the total output is about 47 percent while the private schools output is about 16 percent of the annual average. Both business education and technical education (not including health oriented technicians) exceed the annual average demand by 16.8 percent and four times the annual average demand, respectively.

Within the limitations of the estimates, it would appear that the public program could increase its output by a factor of two (if private output remains stationary) before demand in most categories would be satisfied.

Up to this point, the bureau is relying for its annual estimates of occupational need on a matrix based on 1960 census data which was projected for 15 years to 1975. Significant changes in the economic climate have occurred, particularly after 1969, which will have a profound bearing on the shape of employment in this decade. Since long range projections require constant verification and adjustment in terms of the influence of new data, the 1970 census provides a benchmark for realignment of the current 1960 census-based projections and its extension in 1980.

A comparison of the 1960 based estimates projected to 1970 with actual census data reveals an over estimate of 4 percent for the total labor force and variations by major occupational groups of up to 12 percent from the 1970 actual. Consequently, it can be expected that 1975 comparisons between the original matrix and actual employment will vary to an even greater extent.

At present the bureau, through the RCU, is considering the choice of partially funding an occupational projection model which is being developed by the State bureau of planning and development or awaiting the completion of a similar model which is being developed jointly by the Pennsylvania Department of Labor and industry and the U.S. Bureau of Labor Statistics.

The approaches used for both models have much to recommend either one, although, the BLS model will be available to the bureau at no cost. However, the planning bureau model is part of a much more broadly based comprehensive model which projects income, population, family, industry, and production growth by regions, counties and labor market areas, while the BLS model will be statewide only.

As of this time, discussions are being carried on by the RCU, the bureau of planning and development, the State department of labor and industry, and the bureau of labor statistics to pool resources in a joint effort. In view of the need for updated projections, every attempt should be made to place development on a priority basis. In this context, the RCU should clearly specify the nature and type of data needed from the joint effort, determine the necessary funding to pay for its portion of the model and actively monitor its development, in the interests of assuring its earliest possible use.

RHODE ISLAND

In its 1971 report, the advisory council urged the development of an information system to provide vocational-technical education decision makers with a status report on all recent graduates and dropouts. This information could be used to judge the effectiveness of present training efforts and could also help in planning new programs. During fiscal year 1972, the Department of Education, Office of Vocational Education, in cooperation with a management consulting firm, began the development of a vocational education management information system (MIS), a pilot project for the Rhode Island educational management information system.

Project work was divided into two phases: Phase I—system analysis and design; and Phase II—detailed design and implementation. During the past year, the department and its consultants concentrated on the first phase. The State advisory council by membership on the project's subcommittee became extensively involved and was able to contribute to the development of system objectives which for Phase I were:

1. To centralize and integrate, to the extent possible, the collection, processing, and dissemination of all information related to vocational education.
2. To recognize the user's needs in the Department of Education and at the local level, especially as these needs relate to the decision making process.
3. Consistent with present data availability, to begin laying the groundwork necessary to establish planning-programing-budgeting systems.

When the system is in operation, data will be collected on vocational education programs and personnel in the area facilities (including the Davies School in Lincoln), comprehensive high schools, and Rhode Island Junior College.

Phase II, scheduled to begin during this fiscal year, will be aimed at putting the system into operation. It will consist of two major steps: first, the development of the data processing aspects of the system; and second, the orientation of potential users.

When the total vocational education management information system is completed, it should contribute substantially to more effective decisionmaking. As a pilot project, it should also serve to improve the acquisition and use of information for the entire field of education in the State. But the vocational education MIS can also serve the cause of economic development in Rhode Island, for it reports on an important aspect of manpower training. The MIS, therefore, should be integrated with both the educational and economic communities.

SOUTH CAROLINA

The four general dimensions of data for planning occupational programs appear to be (1) the job opportunities and manpower needs, (2) the number and needs of the students, (3) other training programs and factors which impinge on the projected number of job opportunities, and (4) the available resources necessary to provide the programs.

The 1970 South Carolina occupational survey provided a wealth of valuable information on manpower needs that has yet to be fully utilized. It is believed that the state of South Carolina is better prepared with data of this type than most other States because of this study. There is a need for a better breakout than simply statewide data, particularly for the secondary programs and for some of the post-secondary programs. There is also a need to constantly revise, supplement, and improve data of these types. The research section of the employment security commission is planning to provide such revisions and updatings of these data.

Data concerning the number of secondary students is readily available. Several assumptions must be made since no information on preferences or plans of the students is available. Even when local information has been obtained, usually through a sample or full survey of students concerning their expressed occupational preference, there is not a consistently high correlation with the eventual life and work-style of the students. It appears that the conservative projection of 60 percent of the students in vocational education as set by the State Board of Education in the 5-year objectives may need to be reviewed by the time that plateau is reached.

Until the staff of the State Board for Technical and Comprehensive Education has had time to complete a thorough planning cycle, one approach will continue to be to take the actual and projected number of enrollees and trends in enrollment as "prima facie" evidence of the need for the program. There has been a consistent and significant increase in the enrollments in the technical education programs throughout the State for 1972 over 1971 and apparently this is still continuing.

The third dimension of planning data consists of the influence of other training programs. During the 1972 fiscal year, information on this was not readily available in any convenient form. If this factor is to be considered, and it appears that it should be, there may need to be a cooperative program to glean this information from the appropriate agencies. This will require codifying all proposed and existing programs by program type or occupational code, and projecting the anticipated number of completions.

The planning dimension of "available resources" is often the most difficult with which to deal. Primarily this concerns personnel, facilities, equipment, and financial resources; and there is no crystal ball for the educational planner in vocational or technical education. The factors of personnel or facilities can be closely approximated. When it comes to available funds, however, accurate predictions for either State or Federal sources of funds for vocational or technical education programs become virtually impossible to obtain.

Basically, valid data are available to the degree that time and effort are put into the process of data acquisition. Continued effort will be needed to assimilate these data and translate them into meaningful form. For example, it is possible to ascertain the number of students leaving secondary schools both through graduation and for other reasons. It is also possible to say how many students were enrolled at any one time in vocational courses. Up to this time, however, it has not been possible to obtain figures concerning how many of those leaving secondary schools from a given class or grade level have or have not had adequate vocational preparation. Some method is needed which will provide information concerning the number or percentage of each grade level who have attained a satisfactory goal in vocational education.

The programs for postsecondary occupational education have to consider the possible number of enrollees of various population groups who should avail themselves of the opportunities in technical education.

As progress continues in the development of the statewide TEC system, it will be necessary to rely more on valid data for planning purposes rather than continuing to accept a percentage increase in enrollments as a goal for technical education. Further, in striving to achieve maximum efficiency in technical education, more specific data will be needed by the State TEC staff concerning facility utilization.

SOUTH DAKOTA

The State director of vocational education contracts with the Business Research Bureau of the University of South Dakota to provide manpower data, and to develop job opportunity and employer needs information. The bureau is a 1970 census tape user and has the computer capability of providing all-item printouts of both the 1970 census of population and census of housing. Demographic, social and economic characteristics data for all 67 counties of South Dakota, with breakdowns to a township and place basis are also provided to the State director by the bureau. Other data and services of the bureau provide the State director a wealth of information on which to base decisions.

TENNESSEE

It appears that the vocational school output is only about 25 percent of the total projected labor demand.

In spite of improvement in procedures and coordination with various State agencies, as well as with local school districts, in obtaining data on job opportunities and manpower needs, including interviews with 1,000 employers by department of employment security, the division of vocational education does not have the data it must have for adequate planning. Current projection techniques do not even attempt to predict job opportunities in areas of employment where opportunities will exist. The council raised the question as to whether or not the industrial development commission is being used to assess such needs and opportunities. It was noted that a study is to be conducted by the East Tennessee Economic Development District on a cooperative basis to determine job opportunities in that area. Funding is to be provided by the division of vocational education, Tennessee Valley Authority and Appalachia.

A major problem noted by the council in achieving planning coordination is that the State department of education has divided the State into districts which are not coterminous with development districts, despite the existence of Executive Order No. 7 requiring all State agencies to organize along such lines.

TEXAS

In the view of the council, this need is one of the most critical deficiencies in the State that stands in the way of effective and efficient planning and management of the education resources. Attention is called to recommendation III, page 19 and to the supply/demand information system for Texas study on page 44 and to other studies in part II that have further implications.

Much progress has been made in recent years, but we are not there yet. The council is encouraged by a keen awareness of this need by many agencies and groups, and local vocational administrators listed this as their most urgent need. Leaders in higher education are very interested in this need. The employment service and others are seeking resources to do a more effective job.

Coordination of training opportunities among agencies is substantial and several mechanisms have encouraged such coordination, such as flow of funds, linkages established by CAMPS and similar groups and perhaps the council can claim some credit. The council has emphasized the concept of focusing upon the needs of the individual. Institutions and agencies should rise to support such needs as a flexible and responsive resource instead of establishing rigid positions and procedures and expecting every individual to respond or not be served.

Industry/education cooperation is developing in the State, yet much remains to be done. Some evidence are: (a) Funding by the State department of education of a position in the Texas Industrial Commission to develop education resources for support of economic development; (b) continued efforts to secure discretionary funds for industry "start-up" training; (c) funding by State department of education for a study to identify needs and resources in economic development; (d) another study, interfacing of resources, is also under consideration; (e) the council continues to encourage utilization of local advisory councils; (f) the council makes every effort to involve industry in public forums; and (g) industry oriented strong leadership on the council with a third of the membership being either a president or vice president of their corporation or firm.

(CAMPS)—During the past year, CAMPS was reorganized and the State secretariat was transferred from the State employment commission to the office of the Governor, division of planning and coordination. A human resources council was formed by an executive order of the Governor. It is believed that only one meeting of the human resources council has been held since its formal organization as opposed to monthly meetings of the State CAMPS.

The chairman of the Texas Employment Commission was charged by the Governor to be responsible for the development of a statewide manpower policy. An advisory committee was appointed by the chairman and interested agencies and groups invited to participate in its deliberations and make presentations. Hearings are being held around the State. The committee has excellent leadership, fine staff support, and a realistic prospect exists for the development of a meaningful manpower policy.

The need for a comprehensive supply demand information system for Texas has been an expressed concern of the advisory council since its earliest examination of technical-vocational education. In the 1971 council recommendations, this need was assigned to the council's top priority. This urgency continues with the 1972 report and recommendations.

Several groups met on this subject during the last year and such meetings culminated in the establishment of a "Tri-Agency Task Force" in April 1972. The task force was activated on May 1, 1972, and was to complete its charge by October 31, 1972. The task force was coordinated by a full-time employee of the Governor's office of information services. There are two other employees, one from the Texas Education Agency and the other from the Texas Employment Commission. Both serve on a half-time basis. The task force had an advisory committee composed of representatives from the Texas Education Agency, Texas Employment Commission, the advisory council and the office of the Governor, divisions of planning and coordination, operational analysis and information services.

UTAH

Valid data for planning purposes exists in such quantity now that a planner, whether it be for manpower needs, job opportunities, or the employer needs, finds a ripe field with a great deal of data available. Each year as a requirement of the Federal Government, the Utah Department of Employment Security prepares a report titled "Utah Occupational Requirements for Vocational Education." This is an extensive report which discusses employment, unemployment trends, labor demands, projected occupational requirements, the labor supply in the State of Utah, training output with numbers of people being instructed in the various disciplines, and a summary. Attached to the report is the "Manpower Administration Report" which lists by dictionary of occupational title code and vocational education instructional program code over 200 specific occupations. These outline the current employment trends, net expansion needs 1 year hence, replacement needs for 1 year hence, total needs 1 year hence, and repeats the same data for 5 years hence. All of these occupations exist in the State of Utah and are keyed to the basic occupations that are available to individuals being trained in Utah institutions.

In addition to data prepared by the Utah Department of Employment Security, the University of Utah, through their business research department, and the board of higher education also publish labor market data which would impact on planning for training purposes.

Employment security also provides 1-year and 5-year projections for major categories of vocational education such as agriculture, distributive, health occupations, et cetera. They convert the Department of Labor job codes to office of education codes in doing this. At the time this report is being prepared, projection data for specific jobs within the major categories is not available, but we have a commitment from the department of employment security that it will be by January 1973.

Vocational education administrators are involved in the CAMPS committee, manpower planning council, manpower development and training act task force, and the work incentive task force. All of these organizations operate within the framework of the manpower development programs in the State. Vocational education is always well represented at meetings of these groups, very frequently with the deputy superintendent for adult, vocational and rehabilitation services heading the group representing vocational education. Vocational education input is meaningful and provides the information necessary to coordinate the vocational education programs with manpower development programs in the State.

Of the 19 members of the Governor's manpower planning council, three are from the professional staff of the State board for vocational education. The State superintendent of public instruction and two of his three deputy superintendents are members of this council, including the deputy superintendent for adult, vocational and rehabilitation services. Also, the associate commissioner for the board of higher education, who has responsibilities for vocational education, is a member.

The manpower planning council is the plannning agency for the programs. This is a general policymaking body, and funds for the various manpower programs, including the manpower development several federally funded programs are channeled through this council for distribution to the various institutions and agencies who do the actual training.

Vocational education administrators are involved with all institutional manpower development programs, with the exception of a few individual programs which are contracted for on an individual basis by various manpower agencies with private education institutions. For example, the department of employment security may contract with a private post-secondary school to do some training. The manpower planning council may be aware of this, but there is very little involvement per se by the vocational education personnel. Vocational education administrators are not involved in many noninstitutional programs such as the national alliance of businessmen "JOBS" program, apprenticeship programs, and contracts made directly by the department of employment security with individual businesses.

The two skill centers in Utah are now operated by the State board for vocational education, and the three area vocational centers also come under the jurisdiction of the State board. This change has taken place during the past year. The skill centers were operated directly by the manpower planning council and the area vocational centers were under the local district in which they are located.

Reviewing the projected output of vocationally trained people from secondary, postsecondary and private institutions for 1973 shows that, as compared with job openings for new and replacement jobs, there will be a shortage in every area. As one compares the job opportunities with the vocational completions, there is a projected over and under labor supply from a minus 73 percent for the health occupations area, to a plus 190 percent for the agriculture area. The advisory council feels there will even be a shortage in the agriculture area, and that a plus 200 percent or more is necessary to meet the projected demand. This is primarily because many of the completions are secondary completions and many high school students will not be available for the labor market for a variety of reasons which include going on for further education. Also, many high school students take vocational programs but do not really have a vocational objective.

In the health occupations and distributive areas, there will be a substantial shortage of vocationally trained people. The Department of Labor estimates that nationwide there will be 10,000 job openings each month during the next decade in the health occupations area. Utah has not yet geared up to supply our share of the demand. In the 88 high schools in Utah, for example, there are just five health occupations classes being taught. Also, just over 50 percent of the high schools have programs in the distributive education area. Even in the trade and industry area there is a projected shortage, and this has been traditionally one of the strong vocational programs. In Utah, though, most of the secondary trade and industry programs are auto mechanics; and here many of the students are taking the class so as to learn to fix their own car rather than with a true vocational interest. We do not mean to imply this is wrong, but feel this should be a factor in relating the education output to job opportunities.

At the postsecondary level, the picture is brighter, especially in the health occupations area where there has been considerable expansion of both programs and enrollments.

WASHINGTON

Manpower Requirements

Of particular importance in recent manpower projections developed by the Employment Security Department is a continuing trend in Washington State toward a service-producing economy. Service-producing industries in Washington increased between 1960 and 1970 by 36 percent as compared with only a 1 percent increase in goods-producing industries. This trend is caused in large part by cutbacks in both the aerospace and contract construction fields and the corresponding increases in education, hospitals, and recreational services.

Along with this movement toward a service-producing economy is a substantial growth in clerical, sales, and service worker occupational groups. According to recent projections, the greatest number of jobs available in Washington State in 1975 will be for various occupational categories under the service worker heading. Anticipated are 16,090 new jobs plus 38,160 labor force separations for a total of 54,250 openings. These new service worker positions will stem largely from expansion in retail trade, medical and educational institutions, and local government, and will especially involve cooks, waiters and waitresses, practical nurses, hospital attendants, janitors, and policemen.

Operative employment is likely to be the most severely inhibited by continued technological advances and the movement toward a service-producing economy. The routine, repetitive nature of the duties of the semiskilled operative workers makes their jobs particularly susceptible to mechanical replacement. Of an anticipated 19,920 openings, only 1,910 will result from the creation of new jobs.

In an effort to relate manpower projections to enrollments in specific vocational courses, the coordinating council for occupational education is currently piloting a projection model. This model is based upon the assumption that the percentage of total enrollment in a comprehensive school system enrolled in a specific occupational field, should approximate the percent of average employment in the same occupational field. While only tentative over- and under-enrollment programs have been confirmed through use of the model, some preliminary data are now available and it is anticipated that more refined judgments will be available in the future. It should be noted that no single model will probably ever be able to relate enrollment and manpower forecasts in any precise manner due primarily to the fact that direct lines between specific vocational programs and specific jobs in our labor market are extremely difficult to identify.

WEST VIRGINIA

There are three broad problem areas in relating available manpower data to the needs of the vocational education system.

The first problem is related to the techniques utilized to make manpower projections and the reliability of the resulting demand data. Although several systems for making manpower projections are available, most notably the system developed by the Bureau of Labor Statistics in the U.S. Department of Labor, W.Va., does not appear to have made use of such systems. According to the footnotes to the manpower demand data contained in the fiscal year 1972 State plan, the division of vocational education has relied heavily on a study which, in light of current trends in employment, is significantly out of adjustment with reference to some important industry sectors, most notably mining. Other difficulties may be noted in the specific instance of the estimated level of employment in distributive education. The figure for 1972 in the fiscal year 1973 State plan is less than one half of the same employment figure in the fiscal year 1972 State plan. Although the projection techniques utilized in the Bureau of Labor Statistics are based on a national model, they are capable of modification to reflect the circumstances of the State. In addition, BLS should be able to provide divisions of vocational education with the technical assistance and computer support necessary to develop a suitable State manpower projection system for vocational education planning.

A second problem area arises from the fact that there are three separate occupational coding systems in existence which are not always compatible. The U.S. Department of Labor, which provides most of the statistics on manpower and employment, utilizes the codes contained in the dictionary of occupational titles (DOT) to categorize and summarize occupational data. The Department of Commerce in its census data publications utilizes another set of occupational codes. The translation of categories between these two code systems has been fairly well defined and presents no major difficulties for vocational educators. The last code system, however, is a problem on at least two levels. This is the U.S. Office of Education occupational program coding system. The first difficulty is that what U.S.O.E. categorizes as programs, particularly at the secondary level, are in fact courses. The second problem is that there are major differences between U.S.O.E. occupational titles and program categories and BLS/census titles and categories. This is particularly true in the areas of occupational home economics, technical programs and vocational industrial programs.

The final problem area lies with the difficulty in obtaining accurate data on the training output of sectors which provide occupational skills training, including industry, labor, private schools, and other Federal- and State-funded manpower training programs. The serious nature of this difficulty may be seen in the fact that for the fiscal year 1973 State plan, the division of vocational education has indicated that such data is largely not available, even on an estimated basis.

WYOMING

Employment data on job opportunities appeared to be as accurate as could be secured. Detailed employment data was not available from any source. The employment security commission, R. & A. section, reported information in seven general job categories. However, the division of occupational education was emphasizing program planning centered around career cluster development. Therefore, the data furnished by ESC was valid and comprehensive.

The following publications of State employment data were available:

"Wyoming Employment Outlook," Employment Security Commission of Wyoming.

"Labor Force Trends," Employment Security Commission of Wyoming.

"Wyoming Economic Indicators," Wyoming Department of Labor and Statistics.

Many local education agencies, such as Cody, Powell, Lovell, Riverton, Rawlins, Rock Springs, Sheridan, and all teacher-coordinators of distributive education office occupations and diversified occupations surveyed the local business and industry to ascertain job opportunities and manpower needs. Accordingly, the seven community colleges conducted surveys for their co-op programs.

At the November 29, 1971, Advisory Council meeting, a representative from the Wyoming Employment Security Commission presented information relative to ESC's computerized job bank. He projected the startup date to be July 1, 1972. The job bank program should enhance the availability of data on job opportunities and manpower needs.

The office of manpower planning conducted a survey of employer manpower needs. Analysis of the study noted the following limitations: (1) A 50 percent return on questionnaire, (2) many large industries did not respond. In summarizing the information from the questionnaire, manpower planning council stated:

> * * * it should be noted that a majority of employers surveyed indicated that they would need additional employees within the next five years. Therefore, it can be expected that the Wyoming civilian work force will continue to grow in all industries within the state. Much of the increase is expected in occupations where there is a seasonality effect; so that Wyoming's employment problems will be generally centered around the effect that Wyoming's climate conditions have on employment.

PUERTO RICO

In a report made to the advisory council by the director of vocational and technical education, Dr. Maria S. Lacot, stated:

> Due to the rapid social and technological changes in Puerto Rico, the State Department of Education, and in particular the Vocational and Technical Programs, are in need of rapid means of obtaining valuable information to meet the demand of trained personnel for industry, commerce and services. The information is particularly important to Vocational Education where enrollment has duplicated in the last years.
>
> The collection of data and the analysis of information is more complex. These tasks are boresome to the personnel and in many cases incomplete, when it is done by hand. When each program gathers its data individually, it duplicates efforts and brings inaccuracy. All these affect sound planning and decrease the effectiveness of the programs.

At present, the vocational and technical program is having difficulties in compiling the following information, Dr. Lacot said:

> *a.* There is no uniformity or accuracy in the data collected in relation to schools, shops, enrollment, teachers.
>
> *b.* No criteria has been established to prevent the duplication of enrollment. For example, in projects where more than one program participate, each one compiles its own enrollment. Even a group may be classified both as "adult" and "post-secondary".
>
> *c.* There is urgent need to update the data. In many cases, while the information is received from the center, a course has been finished, or a new enrollment added.
>
> *d.* There are no uniform practices, instruments, or records or forms, to obtain the information.
>
> *e.* The directors of the programs, in some cases have not the entire view of the information needed, and some data may be missing.
>
> *f.* Other agencies, which in many cases are used as a source of information—Department of Labor, Planning Board, etc.—use a different codification or compile the information in a way not useful to the vocational and technical programs.

The report offers a list of statistical data and information which are needed for the preparation of the State plan, for the final annual report, for periodic reports to CAMPS, for reports to U.S.O.E., to the office of personnel of Puerto Rico, and for many other purposes. Form OE 3136, OE 3138, OE 3139, PR 3129, PR 3131, PR 3132, PR 3133 and many others require up-to-date, accurate and reliable information in a short time. Students have to be identified by instructional levels, occupational areas, target population, as well as by schools, regions, and courses. "Making all this classification by hand, takes a long time and in most cases is not very reliable," says Dr. Lacot.

The advisory council was very concerned with this situation. The council also became aware that the VTE programs were very conscious of those conditions and that they were already looking for solutions. The problem was discussed frankly and a plan of work was suggested. Meetings were made to hear the advice of specialists. The director of CEDE (Electronic Center of Statistical Data) from the Department of Education was consulted, other specialists from the States were contacted and the reports on data collection and data bank from the U.S.O.E., were studied.

To deal with the problem, the vocational and technical program started a joint venture with the planning and development program of the Department of Education. Four files were to be prepared (students, facilities, personnel, and finance), combining the information collected for the whole school system, with the information required for the vocational programs.

The shortcomings of this proposed system are (1) that it requires a long time for the development of the modules, and (2) the data, after collected, have to be processed, analyzed, and translated into such form as to be of value for the planning and evaluation purposes of the VTE programs.

Thus, the VTE director decided to make use of the services of the center for vocational and technical education, in Ohio State University, to implement an information system. The electronic center of statistical data of the Department of Education is to provide the computer service. The Ohio center staff has experience in the designing and installation of information systems for vocational programs with the specific approach of using the data for planning and evaluation, and with the corresponding codification as required by the U.S. Office of Education. The advisory council may contribute to the expense of this project.

The installation components, including costs, personnel, procedures, and data formats have been determined. The system will provide for (1) an enrollment inventory by schools, regions, levels, and programs, (2) a program characteristic or status report, (3) a community-school characteristics inventory, and (4) a follow-up student information card. The system will provide also for continuous updating of information, and for a reduction of duplication. Collected data will be machine processed, and computer printout tables will be generated to provide summary data to the administrators.

To What Extent are Students in Secondary and Postsecondary Educational Programs Being Provided Adequate Educational and Vocational Counseling?

ALABAMA

The student-counselor ratio was 5,491 to 1. Many high schools do not have a full-time counselor assigned.

ARKANSAS

Substantive and effective vocational counseling and guidance is virtually nonexistent for the majority of the State's students. The counselor-pupil ratio is far too high and there is too little occupational counseling. Most school counselors function more as an arm of the school's administration than they do as practicing counselors.

CALIFORNIA

Counseling and guidance are viewed by the Council as important aspects of vocational education program development. The Council believes that every student should have ready access to vocational guidance information, and every counselor be equipped to interpret and disseminate information on all careers—not only those that require a college degree. The Council sees little improvement in the vocational counseling and guidance program and feels that it is still the weakest link in the vocational education program. Other than a limited number of innovative approaches to vocational guidance—such projects as VIEW, JOB–O, mobile counseling vans—too little has been done to improve counselor's ability to provide job and career opportunities information to all students.

HAWAII

In the past year, the Council has noted several important steps taken by both the DOE and the community colleges in strengthening vocational counseling and guidance programs. In a time of fiscal austerity, the Council feels it wise that alternatives to merely increasing the number of counselors are being sought. The development of the occupational resource manual for Hawaii in 1972 was a significant step forward and the continuation of the work of the occupational information and guidance service center through the new career information center will ensure that counselors at both the secondary and postsecondary levels will have access to current occupational information materials.

Significant progress was also made during the last year in the DOE's career development continuum project, kindergarten through

14, which will produce a conceptual model for a comprehensive program and counseling service in vocational guidance and career development. Curriculum guides will be completed for levels kindergarten through 3, 4 through 6, 7 through 9, and 10 through 14, by June 1973.

While the Council is encouraged by the steps taken, it wishes to reemphasize that the problem of reaching the student and meeting his needs for vocational counseling still remains.

LOUISIANA

Leaders in the field of guidance and counseling seem to agree that counselors at the elementary and secondary levels should be general counselors with the vocational aspects of counseling being only one important dimension of their job. In other words, at this level, all counselors should counsel on career or vocational concerns.

The following is quoted from the PAR Analysis:

> There were eight hundred fifty two counselors in the public elementary and secondary schools in 1970–71. Of these, six hundred ninety one were full-time and one hundred sixty one part-time; seven hundred ninety four were certified. There were 5,731 elementary students for every elementary counselor and four hundred thirty seven secondary students for every secondary counselor. Less than half of the public schools had counselors.
>
> The elementary-secondary guidance system in Louisiana is plagued with four acute problems:
>
> 1. There are too few counselors in the public schools.
> 2. Understaffing of counselor services is worse than ratios indicates, for many counselors must spend a great deal of their time on administrative and clerical work.
> 3. Few counselors are aware of the educational alternatives to college.
> 4. No comprehensive system of educational employment information is available to counselors.[1]

For fiscal year 1971, there were 429 full-time counselors and 53 part-time counselors in vocational education at the secondary level. In 1972, there were 467 full-time and 53 part-time counselors. Expenditures for guidance services for fiscal 1972 are not yet available, however, for 1971 approximately $1.4 million was spent from vocational education funds. Of this amount $1.25 million was from State funds.

It would appear that the apparent shortages of counselors is due not to lack of financial commitment of the part of the leadership in vocational education but rather financial commitment through the general foundation program.

At the post secondary level, there are only 19 full-time counselors. This would appear to be an inadequate number based on the fact that some schools are without a counselor. Approximately $400,000 in Federal and State vocational education funds were spent in 1971 for this purpose. The figure for 1972 will be about the same.

MICHIGAN

The council recommends that more counseling and guidance personnel need to be trained and assigned for career education purposes at all educational levels, particularly grades kindergarten through six.

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[1] "Meeting Louisiana's Needs for Vocational and Technical Education: A Summary:, *PAR Analysis*, Number 184, 1972, p. 14.

Furthermore, the council recommends that job placement should be the continuing responsibility of the school counselor or some other professionally qualified person specifically hired to find meaningful employment for students.

MISSOURI

The council recommends that counselors be allowed to perform the duties prescribed by their training. This can be insured by alleviating duties which mandate the counselors scheduling people into classes as opposed to educational-vocational planning; recording test scores and making transcripts as opposed to interpretation; etc. Counselors are too high priced to be clerks.

NEBRASKA

Guidance counselors are stressing orientation to the occupations with greater emphasis. Over 200 counselors have visited their area technical colleges to gain information about educational opportunities available. The increase in vocational enrollment in secondary schools may be credited in part to counselors' efforts. The increase in postsecondary vocational technical enrollments during the past year has been significant. A good start has been made, but continued emphasis is needed to generate a greater statewide movement.

A subcommittee of the council met personally with counselor education agencies of four major institutions within the State to strengthen preservice and inservice preparation in the occupations and to bring about uniformity of understanding about the role of the counselor.

Major inroads have been made in integrating vocational education and career education into the annual conference program of the Nebraska Personnel Guidance Association. Already incorporated into their agenda are featured presentations by the council plus small group discussion sections on the 1972 Evaluation Report.

The problem of leadership in guidance and counseling from the State Department of education was another concern with which the council was involved. This problem was studied and recommendations were presented in the form of a written report to the State board at its November, 1971, meeting. Because of an identified need, the Legislature passed a bill to establish and fund a student personnel services section within the department of education.

However, because the legislation was passed late in the year, difficulties were encountered in securing a staff with needed professional qualifications within the imposed salary limitations. A delay in filling the authorized positions caused a major portion of the funds to be withdrawn by the next session of the legislature. The council has continued close monitoring of this problem and will stress reduction of the restrictive limitations and appropriation of adequate funds to implement this important education service.

Inservice workshops for counselors were conducted by the division of vocational education in cooperation with the student personnel services section as a result of council recommendations and priorities in the 1971 evaluation report. Seven workshops were conducted between the dates of February 25 and April 20, 1972, with 404 counselors, curriculum directors, and local principals attending.

As a result of specific concern focused upon guidance and counseling by the council, the postsecondary schools in the State have made a concerted effort to contact secondary school counselors in their areas to inform them of educational opportunities available with placement and employment data for each occupational area.

The exemplary projects (which are national level incentives for innovative activities) at Platte College and Central Nebraska Technical College were continued this year and are enhancing occupational orientation in their areas.

NEW YORK

The advisory council is concerned that one very important part of a comprehensive system of occupational education is not receiving the attention it merits. We speak of the guidance and counseling systems which serve to connect the individual student with the school program and the world of work. The council believes that an effective program of guidance and counseling is an essential component of any educational program, and this is especially true when we speak of a comprehensive system of occupational education.

It is widely felt that guidance and counseling, are, at best, inadequate. Results of an evaluation study commissioned by the council attest to this fact.

The advisory council feels that the situation which presently exists in occupational counseling and guidance is tantamount to a crisis situation.

It is time for reform in guidance and counseling. It is time for a change in attitude toward vocational education on the part of all those involved in education. If we accept the forecast of the Labor Department that by the end of the decade less than 20 percent of the jobs that exist will require a college degree, then we should see the need for rearranging our educational priorities and ending the college degree fixation so many educators share. If we are going to provide youth with a basis for making sound decisions with reference to occupational choice, then we must provide our counselors with the information they need to competently advise students of the options that exist, possibly through creative programs which will establish direct contacts with business, industry, and labor, employing people with experience in these fields. If we make occupational counseling a top priority, then we must remember that counseling is much more than equipping a student for a job; counseling should help him to lay foundations for a career.

The Advisory Council recognizes that the ultimate responsibility for improving the quality of public school guidance programs probably rests with the bureau of guidance. In addition, it is recognized that the office of occupational education, in developing its State plan, provided over a period of several years Federal vocational funds for the purpose of demonstration guidance models, as well as support for guidance personnel in area centers and cities. It is the belief of the Council that additional funds are needed to accomplish the recommendations made in this report, but hesitate to recommend large expenditures of vocational funds specifically for guidance services because of the many priorities for occupational education which must be implemented and the very limited State allocation. The Council believes that other sources of funds (both Federal and State) should be directed at implementing the recommendations contained in this report.

The Advisory Council further calls upon all schools and colleges in New York State to strengthen their occupational career guidance and counseling services, and urges colleges and universities to expand and improve their programs for training guidance counselors. Competent persons are needed who can counsel youth and adults on career preparation required in today's complex society.

TENNESSEE

Guidance programs in secondary schools continue to reflect an institutional commitment predominantly to college placement. However, the State department has stated that one of its objectives of the overall counseling and guidance program is the location of jobs for enrollees. Workshops for guidance counselors are giving special emphasis to the area of job placement and follow-up of students in: (1) Part-time jobs, (2) full-time jobs, or (3) further postsecondary occupational training.

TRUST TERRITORY

A greater effort must be made to improve the vocational guidance programs throughout the Trust Territory. Some form of vocational guidance starting in the earlier grades is desirable. The high school vocational guidance programs must be based more on the actual needs and opportunities in Micronesia. The followup program for placing graduates of vocational programs must be strengthened.

1361

To What Extent are Teacher Education and Training Institutions, and Inservice Teacher Training Programs, Concerned With Implementing Career Education Concepts and Improving Vocational-Technical Teacher Competencies?

ARIZONA

There are three public universities in Arizona. Northern Arizona University, Arizona State University, and the University of Arizona. Quality vocational programs at these three universities include the teacher education coordination program and the trade and industrial teacher education program at Northern Arizona University. NAU has a concept of service area of the college and at the present time is offering introductory career education in 10 different geographic locations on an extension basis. NAU is the most flexible vocational-oriented university of the three public universities and should be commended.

Quality vocational programs that exist at ASU are the office and distributive teacher education program, and the cooperative office education workshop that was offered by ASU was also a successful attempt at quality vocational education, as is the home economics teacher education program at ASU. ASU, as many large universities, needs to restudy its position on vocational education. While vocational education does exist in a large number of the departments of the university, the acceptance of these programs by professors and departments oriented to the liberal arts is practically nonexistent. The administration of ASU passively supports the place of vocational education at the university level, but little has been done to implement vocational education at the university. Vocational education exists as a fragmented system of individual departments and schools throughout the university. ASU should be encouraged to draw together somehow all the elements of vocational education into a common core which would add unity and direction to vocational education.

The University of Arizona has an excellent agriculture teacher program that may be the best program in the State. However, the University of Arizona has some administrative problems in that many of the faculty and top administrators of the University of Arizona view themselves in an academic world above the world of work. The university in such an attitude is divorced from any identification with the concepts of vocational education. In such an environment, as at ASU, people associated with vocational education endeavors desire to protectively attach themselves with apron strings of respectability to the academic world by instituting a generalized pseudo-liberal arts approach to vocational education, epitomized by the euphemistic name change of "shops" to "laboratories."

As a possible solution to the problems that exist in the institutions of higher learning, a position such as a vice-president of career education could be established. These positions, one at ASU and one at the U. of A., could be instrumental in providing leadership for vocational and career education at the universities as well as helping to determine general educational policies at the universities. Perhaps in this manner, the problems that are prevalent in vocational education, career education, and vocational counseling preparation can be more easily solved. Of course, there are viable vocational programs at the University of Arizona and Arizona State University, and these should be encouraged. However, the Arizona State University center for career education project should not be funded by vocational education money because the goal of the project is to duplicate the existing material now available in the RCU of the division of vocational education. The RCU is currently exploring the possibility of placing all career and vocational education information in the libraries of the three universities.

DELAWARE

For a State that looks forward to being a career education model for the Nation, Delaware is neglecting a vital component. Teacher training in occupational, vocational, and career education is either nil or woefully weak.

Through the perisistent efforts of members of the staff of the department of public instruction, bred by frustration, a contract was negotiated with an out-of-State university to conduct graduate programs in vocational education for the next 3 years. It is anticipated that the departments of education and the graduate schools of Delaware institutions of higher learning will be in violent opposition to this solution. It is hoped that they will be.

Council members and staff have attended classes and courses in teacher education in Delaware during the entire year.

There is virtually no instruction dealing with the incorporation of career education concepts into teaching methodology in academic programs. There is little to be offered, to either student teachers or experienced teachers concerning methodology and technique in dealing with the disadvantaged, handicapped, or minority child. The organization and supervision of youth activities programs, from student councils to yearbook to VICA, is literally untouched.

Teacher training in vocational education, with the exceptions noted, is as outdated as possible, inefficient and ineffective.

KANSAS

Vocational Education Personnel Development

Since January 15, 1972, the division of vocational education has had available the services of a person responsible for vocational education personnel development. This position is funded under a grant from the U.S. Office of Education and the incumbent in this position is a staff member of Kansas State College at Pittsburg working under contract with the State department of education.

Some of the activities in personnel development carried out in the last 6 months of fiscal year 1972 are:

Development of a State Plan

A comprehensive plan for educational personnel development has been developed. This plan includes (1) the goals and objectives of vocational education, (2) the personnel needs to obtain these goals and objectives, and (3) the supplemental services needed to supply these needs.

Organization of an Advisory Committee

An advisory committee representative of community colleges, local school districts, area vocational technical schools, business, and industry has been organized and has held several meetings.

Coordination of Vocational Teacher Preparation

A series of conferences with cooperating teacher education institutions and the staff of the division of vocational education has been held and more conferences are planned. The purpose of these conferences is to produce a coordinated effort to develop a statewide system of vocational teacher preparation.

State Organization of Vocational Teacher Educators

Two meetings have already been held and plans have been made for a fall and spring meeting each year of vocational teacher educators and the vocational division staff. The purpose of this organization is to develop better communications between the two groups.

Workshop for Coordinators

This workshop was held in the summer of 1972 for coordinators of cooperative programs in agricultural and home economics related occupations. In attendance were 30 coordinators and 20 completed the requirements for certification.

The instructional program was an 8-week internship in business and industry together with related course work developed to produce 129 industrial education teachers to implement the new industrial arts career education curriculum by 1973. Centers providing inservice education for this project are:

Kansas State College, Pittsburg—30 teachers.
Kansas State Teachers College, Emporia—24 teachers.
Kansas State College, Fort Hays—25 teachers.
Wichita State University, Wichita—50 teachers.

Development of Career Education Teachers

A plan to develop uniform philosophies, objectives, and methods among the colleges and universities, for career education teachers is underway. This coordinated approach to career education will be implemented on both a preservice and inservice basis.

Home Economics and Agri-Business Teachers

Curricular changes in the teacher-education program of these two groups has been initiated. It is planned to place more emphasis on occupations programs and career education in the preservice education of these teachers.

Workshops for Vocational Counselors

The purpose of this workshop is to assist vocational guidance to implement the KVIEW materials in their local school districts, and to assist counselors to plan and implement programs of occupational orientation and career awareness. This service is provided by contract with Kansas State University, Manhattan, Kans.

Services for the Disadvantaged and Handicapped

Special inservice programs have been held at Kansas State College at Pittsburg, for advisers of youth organizations. The purpose of these programs is to help the advisers motivate handicapped and disadvantaged young people to participate effectively in these organizations. Thirty-five advisers have participated in this workshop.

Kansas State University, at Manhattan, has sponsored a workshop for instructors in methods and materials for teaching disadvantaged and handicapped students in vocational agriculture.

LOUISIANA

The 1972 Louisiana State plan provides that both inservice and preservice programs for teachers will be provided through contractual arrangements with cooperating institutions. The written agreements are cooperatively developed between the State board and teacher-training institutions. While the agreements are continuous, they are subject to periodic evaluation and revision. The agreements included provisions describing programs, personnel, facilities, trainees, and financial support. Preservice programs are designed to prepare teachers and other personnel to meet State certification requirements while inservice programs are designed to upgrade competencies of teachers, including skill competencies which may be provided through industry or business cooperation. Activities may include workshops, seminars, short courses, etc.

For some categories of training, the greatest numbers are in inservice programs, an example being in trades and industries where most of the teachers enter teaching from industry and are prepared in teaching skills on an inservice basis.

MICHIGAN

The council optimistically noted that progress is being made toward the development of a genuine systems approach to meeting statewide personnel development needs, rather than concentrating its efforts on teacher education. The question was raised as to finding sufficient funds for teacher education in the field of career education, with the hope expressed that money not be taken from vocational-technical teacher education programs.

NEBRASKA

The second major area of concern in the expansion of vocational education in the State was designated by the council to be the availability of well-prepared occupational teachers. A number of accomplishments have contributed significantly to alleviating this problem. A letter to the council chairman, Mrs. Vieregg, resulting from a visit by the council to Kearney State College, identifies the progress.

As a result of recommendations "b" through "f" under State priority number 2 on occupational teacher preparation of the 1971 evaluation report and ensuring followup meetings, there has been established a coordinator for occupational education within the Teachers College of the University of Nebraska at Lincoln. A person was selected as coordinator and office space located. The office opened July 1, 1972.

A full-time staff member has been added to the division of Vocational Education and designated as Director of EPDA (Education Professions Development Act). Responsibilities will be to coordinate the teacher education agencies through leadership from the State level, including in-service workshops and fulfillment of recommendations from the council's evaluation.

A research project is being conducted at Kearney State College to help determine the course content in producing quality trade and industrial teachers. The University of Nebraska at Omaha has been approved for trade and industrial teacher education.

The State staff in cooperative education, in conjunction with the University of Nebraska cooperative staff at Lincoln, conducted eight in-service workshops over the State to assist those instructors involved in this method of teaching.

All of the State colleges and the University of Nebraska at Lincoln are accepting from 40 to 60 hours of transfer credit from the technical community colleges. This should help provide more capable vocational instructors in the future.

After the second year of emphasis, there has been insufficient progress concerning a teacher education agency for health occupations. There is, however, uniform agreement on the need and advisability of the recommendation. Two institutions are actively considering it, and a break through appears probable within the coming year.

NEW JERSEY

The level of commitment to or support for vocational teacher training on the part of the State's institutions of higher education is minimal. The support provided is represented primarily by the traditional teacher training programs in business, home economics, and distributive education. Other than these, support comes from the division of vocational education using Federal funds under Public Law 90–576, with little evidence that the teacher training institutions are willing to incorporate these programs as a regular part of the institutional offerings.

If vocational teacher training in New Jersey is to adequately meet the requirements imposed by the objectives for expanding and improving vocational education, two major tasks should be undertaken immediately:

1. Mechanisms necessary for establishing reasonable estimates of the manpower, as well as the training needs, for vocational teachers must be established.

2. A definition of the various leadership roles to be discharged by the State's vocational teacher training institutions must be developed.

NEW MEXICO

During the past year, the council expended a great deal of time and effort reviewing a number of concerns relating to personal development and vocational teacher certification. Joining forces with the State board, new vocational teacher certification requirements were established, grouping such personnel into three categories: vocational cooperative teacher-coordinator, regular vocational instructor, and teacher of adult vocational programs.

Two other concerns are distressing the council: (1) the need for in-service teacher education development offerings at the local school level in cooperation with business and industry as approved by the State Department of Education; and (2) the need for a Statewide planning effort on the part of teacher-training institutions to identify the role of each institution in preparing teachers, counselors and administrators to meet the needs of a comprehensive career education program in the school system of the State.

NORTH CAROLINA

Bryant[1] conducted A Status Study of Vocational Teacher Education in North Carolina for the council and his tentative findings (study in final stages) include:

1. Projected graduates from all teacher education programs supplying occupational teachers does not appear to be sufficient to meet proposed demands for occupational teachers in the immediate future.
2. The lack of qualified personnel in occupational education is somewhat reflected in the finding that two of five teachers were provisionally certified.
3. Teachers generally rate their pre-service preparation as adequate. Local administrators did not perceive the adequacy of the pre-service preparation of teachers as highly as did vocational teachers.
4. Occupational teachers and local administrators perceive that future in-service needs for vocational teachers should include emphasis on (1) teaching the disadvantaged and handicapped, (2) teaching occupational exploration units, (3) working with lay groups, and (4) using the "co-op" approach in teaching.
5. Statewide coordination of vocational teacher education is needed.

Other studies in process indicate that more long-range planning for professional development is needed both by the State agencies and by teacher education institutions, that added emphasis in professional development should be on the new thrusts of the Vocational Education Amendments of 1968 and the Educational Amendments of 1972, and that cooperative planning and renewed efforts at effective communication are needed by both the State agencies and teacher education institutions.

PUERTO RICO

During the current year, 1971–72, the VTE program organized a unit for the professional development of VTE personnel. It is mainly a coordinating unit between several VTE programs and institutions of higher learning in Puerto Rico and abroad. Its purpose is to survey in-service training as well as facilitate the preparation of future teachers. The unit makes use of Federal funds and State funds for scholarships, seminars, and other in-service training activities.

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[1] Bryant, C. Douglas. *A Status Study of Vocational Teacher Education in North Carolina*, Division of Occupational Education, School of Education, North Carolina State University, Raleigh, N. C., 1972.

A total of 37 teachers were given scholarships (year leave with full pay) to take graduate work during the year 1971–72. Three of them studied in the United States and the others in Puerto Rico. Two of those studying in the States had a Federal grant. They are working toward the doctorate degree in commercial education, distributive education and home economics.

A total of 512 teachers were paid the tuition fees to study part-time in Puerto Rico: 222 for master's degrees and 290 for bachelor's degrees.

Seven teachers spent the summer session getting acquainted with industrial developments. Thirty-six teachers and supervisors attended meetings and seminars in the United States, including visits to schools, plants, and farms. Almost all teachers attended meetings and seminars in Puerto Rico for inservice training.

Many other meetings and workshops were conducted by different programs: home economics, technical education, agriculture, health, etcetera to foster the professional growth and proficiency of their personnel. Eight new teachers received training in agriculture in the Mayaguez Campus of the University of Puerto Rico (agriculture and mechanical arts), and 30 other teachers received training in technical education in the Inter-American University in coordination with the technical institutes.

TRUST TERRITORY

Attention should be given by CCM staff and District inservice teacher training staff to developing a career awareness component in the elementary teacher education program.

[redacted]

TO WHAT EXTENT IS THERE ARTICULATION OF CURRICULA AND PROGRAMS BETWEEN THE SECONDARY AND POSTSECONDARY SCHOOLS IN ORDER TO AVOID DUPLICATION OF PROGRAMS, CONTENT MATTER, TRAINING AND EQUIPMENT; AND TO PROVIDE FOR RATIONAL PROGRESS IN THE CAREER DEVELOPMENT EDUCATION AND TRAINING OF INDIVIDUAL STUDENTS?

ARIZONA

Programs need to be coordinated to avoid duplication at the secondary level. Programs are developed independently and are fragmented, not only at the local school level but also on a statewide level. Objectives for vocational education within the State need to be better coordinated.

At the postsecondary level, the bisemester meetings of the members of the division of vocational education and the vocational technical deans of all the community colleges in the State represent one of the strongest curriculum planning groups in the State. This group also maintains a high level of communication among themselves, articulating programs within the State. Because of this counsel, instructors in the various community colleges communicate with each other far more than those same types of instructors in high schools, a factor which helps to improve programs within the community colleges in Arizona.

COLORADO

In areas of Colorado served by a postsecondary vocational institution, the coordination and articulation with secondary vocational education programs is good. Most of the postsecondary schools provide contract program services to the secondary schools in their areas. As a result, it is possible in some schools for a high school student to be enrolled in a postsecondary program to secure an entry level skill. At the same time he is earning credit which can be applied to a postsecondary degree in his selected program.

In areas not served by a postsecondary institution there is little coordination of programs between the secondary and postsecondary levels.

DELAWARE

In its 1971 Evaluation Report, the council recommended that the institutions of higher education in Delaware serve as a model for the Nation in conducting an "immediate reexamination and evaluation of admission policies" which discourage students at the secondary level to engage in occupational/vocational pursuits at the secondary level at the risk of losing admission to the "college of their choice."

Beyond Delaware Technical and Community College, which maintains an "open door" policy for all Delaware residents, there is little evidence that any positive action has been taken in this regard by the other institutions.

In spite of a consortia agreement, established more than 2 years ago, which was intended to make educational credits, work experience, and teaching experience certified by one institution in the State acceptable, and redeemable, by one of the other institutions, such has not been the case. In fact, there are examples of students and teachers in the State being unable to change institutions, for any reason, without "starting all over again."

HAWAII

Despite the development of the State master plan for vocational education in 1968, there has been no coordinated or unified response by the community colleges to guidelines set forth in the plan. The university has declared that the provosts and faculties should have considerable latitude to administer and plan their own programs and the council recognizes this as necessary to avoid expensive duplication and to ensure that enrollments in any one program are big enough to be cost-effective. However, at the same time, the council notes that a common set of guidelines does not seem to be operative among the community colleges as to the substance of given programs. The 10-year curriculum program draft outline does not appear to have been developed with a common base for definitions and courses. Moreover, this problem is compounded when an attempt is made to articulate programs with the DOE.

For example, the DOE's secondary level vocational educational program is moving toward a uniform course content in any one of eight vocational clusters. However, when a DOE graduate enters a community college for further specialization, he discovers that there may be little standardization from one college to another in the entry level course requirements. In other words, a DOE graduate student may be prepared for a given course that is offered by Leeward Community College but not for Honolulu Community College in the same kind of program because no attempt has been made to standardize course content among community colleges. This lack of coordination also penalizes a community college student who wants to transfer from one college to another. The council contends that this lack of coordination is inefficient and unnecessary, and in many cases, inexcusable.

Problems also exist when a community college graduate with an A.S. degree attempts to enroll in a degree program on a 4-year University of Hawaii campus. Many of the credits earned under vocational education do not presently fulfill the baccalaureate degree requirements. This inequity is apparent when vocational-technical course contents are compared with course contents offered by certain programs on a 4-year campus, that is, fine arts or physical education. Maximum articulation should allow the vocational education major in a community college at least three options: to enroll in a certificate program, to enroll and complete an A.S. degree program, or to continue for a baccalaureate without being unduly penalized for completing an A.S. rather than an A.A. degree.

IDAHO

The advisory council is not satisfied with articulation among secondary, postsecondary and adult education programs; however, improvement is noted. The area vocational schools are moving to openentry and openend programs, whereby a student can enter the program anytime and end when he attains the proficiency required to be a satisfactory worker in the area of training.

The advisory council finds that there are too many programs that are based on the time of attendance, and too many cases where agencies give little or no recognition to the value of programs operated by other agencies.

It is important that the secondary schools through guidance and counseling, media services, and teacher contacts, inform all students of occupational and career training available at other education agencies.

KANSAS

Most of the secondary, postsecondary and adult vocational education programs are under the jurisdiction of the State board of education. The concentration of these programs in a single agency under the direction of a commissioner of education has produced an improved level of coordination and articulation among them: for example, the joint meetings now held between area vocational—technical schools and community colleges.

There is little or no coordination or articulation among the occupational programs offered through university extension or in the 4-year colleges except where the division of vocational education reimburses these programs. The colleges and universities in Kansas are controlled by the board of regents and there is minimal communication between the two agencies.

MARYLAND

Planning efforts are under way to avoid duplication of vocational-technical services, programs and equipment at community colleges and secondary schools operating in the same locale. Qualified secondary school students are being encouraged to participate in noncompeting vocational—technical programs offered by community colleges.

As concerns the responsibility for adult vocational educational and training, there is as yet no policy clarifying the role of the community colleges and the secondary schools.

MASSACHUSETTS

The council finds that the comprehensive high schools, the regional vocational-technical schools at the secondary level, the technical and/or community colleges at the postsecondary level, and the various adult education agencies simply do not cooperate in too many cases.

The board of community colleges is highly autonomous: adult education is carried on at several district and highly independent levels; and in the area of grades 9–12 there is frequently a separation rather than a mix of trade schools, regional schools, high schools—all presided over by independent trustees/committees accustomed to complete local independence and control. The very complexity of the highly structured department of education intensifies the task of articulation and coordination. The council views an immediate solution to this problem as necessary.

MICHIGAN

The council recommends that the concept of apprenticeship should be broadened beyond the traditional trade training areas, and that apprenticeship should be thought of as a logical extension of public education, and articulated with secondary and postsecondary programs. The council also recommends that a person entering an apprenticeship should be given credit for previous educational and occupational experience.

The council pointed out that the department of education reimbursement criteria has never embodied factors which effectively assess the relationship of a specific program to others offered within the same educational agency or those offered by other agencies in the same geographical area. It is expected that this situation will be corrected with implementation of the widely accepted department of education developed, tentative plan for the development of area vocational education centers in Michigan.

MISSISSIPPI

The council has urged that the conferences initiated in January and February of 1971, in two junior colleges for developing plans for coordinating and articulating instructional programs be followed with conferences in the other 14 junior college districts of the State, and that personnel in general education be involved in a very active manner. Responsibility for planning these conferences should be with the coordinating unit of Mississippi State University, and the staff personnel for planning in the State department of education in both general education and vocational-technical education. There should be close and complete followup of the work done in the conferences.

However, severe limitations on travel funds for local teachers has hampered the operation of conferences for the purpose of articulating the junior college and high school instructional programs. However, much effort is being made at the local level through joint meetings of high school and junior college instructors to effect the necessary articulation.

MISSOURI

It appears that more coordination is needed between the State department of Education and the commission on higher education in the area of vocational-technical education. This should be remedied in order that good planning, lack of duplication, and monetary savings may be insured to all who are involved in any postsecondary and adult programming. When secondary, postsecondary, and adult programs are offered in area vocational schools, there is no problem since all vocational funding and administering is done by the career and adult education division. However, problems of planning, coordination, and articulation can arise when programs are instituted without checking on the planning of the junior colleges.

MONTANA

It is not easy, given the array of programs with overlapping coverage and sources of funds, to achieve anything like ideal coordination and articulation between programs. Administering programs with three sources of funds, for example, invariably means three sets of guidelines, three reports, and perhaps three grant applications followed by three financial audits and three program evaluations.

There is considerable evidence of efforts of coordination and articulation by both secondary and post-secondary level schools in administering vocational education and training. In spite of these efforts, it is not hard to find instances of little articulation or cooperation between programs of different agencies.

NEVADA

The advisory council is greatly concerned with the lack of coordination and articulation among secondary, postsecondary and adult education agencies at State levels. However, coordination and articulation are evident among field level agencies, this is, high schools and community colleges.

NEW MEXICO

The council feels there exists a great need to "connect the career development goals and activities designed for elementary and secondary students to the efforts of the area vocational schools in order to establish continuity in career preparation and to assure maximum utilization of all existing resources.

To accomplish this, the State department of education will have to provide for the interlocking of its plans for post-secondary occupational education with its plans for elementary and secondary programs and services—including long-term construction needs. Additional resources must be sought from the community and private training sector.

NEW YORK

Perhaps most indicative of the state of guidance and counseling and placement/followup activities in the major cities are findings by the Arthur D. Little team on the subject of articulation. With few exceptions, they found entrance into a vocational school is a one-way street for the student. Theoretically, the student may transfer easily from one vocational school to another, or even back to the "home" school. In practice, few people interviewed (including students) believed the transfer system worked properly. The reasons cited were the lack of counseling available to the student to assist him in the "where to now?" choice, and the lack of readily available information about other programs in other schools. Most significant is the fact that none of the persons interviewed actually knew what happened to the majority of students who transferred out of vocational school. Most persons agreed that they probably dropped out.

NORTH DAKOTA

Articulation and coordination among secondary, post-secondary, and adult education school programs is evidenced by many institutions sharing facilities, instructors, etcetera. Several curriculum projects have been conducted to develop curriculum that assures articulation between the levels.

OKLAHOMA

There is no uniformity in post-secondary institutions on credit that eliminates necessity for some duplicate courses. Usual method is to obtain advanced standing by examination although this is not spread over all courses. At OSU Technical Institute in Oklahoma City and at OSU Tech, Okmulgee, for example, advance standing is permitted on electronics, drafting, design and computer science, if Vo-Tech secondary graduates meet test criteria. Eastern Oklahoma, at Wilburton, Northeastern at Miami, Tulso Junior College, Cameron at Lawton and Murray State at Tishhomingo, are approaching uniformity in the matter of course credits for previous work.

Crediting work done at the secondary level was seen by Dr. Lloyd Wiggins of OSU's department of occupational and adult training, as distinct encouragement for continuing training at a higher level. He felt there does need to be more coordination on curriculum between area schools, with the residential school at Okmulgee, technical institutes and junior colleges.

PENNSYLVANIA

It appears there has been little coordination in program planning between the various types of post-secondary programs. Likewise, articulation of curriculum between secondary and postsecondary level programs is apparently very limited.

A unified statewide planning system that takes into account all of the training agencies and programs to train individuals to fill the statewide labor market needs is urgently needed.

The State board of education should create a representative council in each community college service area, of all vocational education interests, including agencies in the private sector, with responsibility for reviewing the total vocational education program in each area and recommending adjustments of programs, services, and activities to provide coordination and articulation of vocational education programs within the area. Cooperation and coordination between levels of vocational education will reduce the possibilities of unnecessary duplication of programs and will provide unique assistance in offering students a comprehensive vocational education program in the district involved.

This recommendation seems to be in harmony with S. 30, an act recently passed by the Pennsylvania Legislature and signed by the Governor, giving the State board of education power to set policy for further development of public higher education in the Commonwealth. Obviously, it is the purpose of the Governor to place responsibility on all colleges and universities to work closely with the secretary of education who will administer the new policy set by the State board. The same purpose is equally important in planning occupational education programs throughout the public secondary and postsecondary school systems.

The great need in the postsecondary level is an information program or system which would assist each type of program in serving better its particular student group and still avoid unnecessary, costly duplication and overlapping. Each type of program could share and use common labor market and program information so that all programs could be coordinated more effectively in a somewhat unified system of post-secondary occupational education. Also needed is a group or committee representative of each major type of post-secondary program so that unified planning might become a reality. We believe that an essential aspect of such unified planning is a State occupational education bureau which is authorized at a high administrative level to work readily across present artificial school grade level constraints.

SOUTH CAROLINA

With a dual system of occupational education such as we have in South Carolina, consisting of one system for secondary vocational education and another for postsecondary technical education, the matter of coordination and articulation of programs has been a primary concern for some time. Coordination among various institutions and agencies and the articulation of closely related occupational education programs between separate institutions or at different levels is a nebulous and often difficult area on which to obtain data. It appears, however, that the range of cooperation among various institutions varies considerably.

There are numerous examples of separate institutions or agencies cooperating to a high degree in providing the utmost in efficiency and educational effectiveness. As a fine example of four or more agencies working together to provide a coordinated, articulated program of occupational education, the Williamsburg Manpower Training Center is mentioned. At a single location, with only a single administrative unit, vocational education, technical education, and other agencies are providing a variety of programs and a number of totally cooperative programs of occupational education. Other examples which illustrate improved coordination include a technical education program of Spartanburg TEC established at Union Area Vocational Center; two Rock Hill secondary school vocational programs established for the current fiscal year at York TEC; and there are numerous other examples that could be given.

At the State level, there is an obvious desire to improve the degree of cooperation between the two primary agencies, in that each agency has designated a ranking staff member to work on this matter. Several activities have been concluded which could serve to improve coordination and articulation, including a conference sponsored by the office of vocational education and the State association of directors of vocational education, as well as others.

From the standpoint of the technical education system, more progress in articulation is in evidence for articulation with colleges and universities than at the other end of the program. Solid progress appears to have been achieved in having credit from technical education centers accepted toward a baccalaureate degree program at several colleges. Several of the State's colleges and universities are accepting technical education program graduates and providing a high percentage of transfer credits: In a few instances, colleges are designing special programs to facilitate such transfers. The trend appears to be essentially toward universal acceptance of technical education credits.

Cooperation with other agencies has been on a casual basis at best. Apparently little effort has been placed on knowing, much less coordinating, vocational and technical education programs with programs operated by other agencies or groups such as the department of corrections, vocational rehabilitation, O.I.C., and others. One example of coordination and cooperation worthy of mention, however, involved Clemson University, Greenville Technical Education Center, and during the summer of 1972, the Tri-County Educational Center, and vocational education.

TENNESSEE

The division of vocational-technical education has attempted to avoid duplication of programs at the secondary, postsecondary, and adult levels by placing responsibility for supervision of all levels of instruction on the field service staff. Some progress has been made in curriculum development by involving instructors at both the secondary and postsecondary levels, but field staff persons are not seen as having sufficient authority to resolve conflicts and effecting coordination. The council believes that much continued and additional effort must be made to bring about coordination in order to avoid program duplication and promote efficiency in program offering. One suggestion is the establishment of a coordinating council adjunct to the development districts organization.

Despite these efforts of the division, the council reports that the need for articulation, vertically and horizontally, among secondary, postsecondary, and adult programs is quite critical. Additional problems may beset any such effort by the creation of a board of regents to govern community colleges while State area vocational-technical schools and State technical institutes remain with the State board for vocational education. This situation is further clouded by the suggestion of the Tennessee Higher Education Commission that the technical institutes become community colleges.

TEXAS

At the State level, administrative responsibilities for secondary, postsecondary, and adult technical-vocational education rest within the department of occupational education and technology, thereby assuring a maximum of coordination and articulation. At the local levels, a variety of arrangements exists and the coordination and articulation at this level are dependent upon the initiative of parties involved. The council has, on several occasions, made recommendations for staffing and other arrangements to improve coordination and articulation.

UTAH

As was reported last year, a uniform numbering system has been put into effect in all postsecondary institutions that will facilitate the transfer of credits in all areas. This system has been promoted by the board of higher education and is one of their significant contributions to date.

The individual postsecondary institutions played a significant role in determining the categorization and numbering of classes. Some vocational courses have numbers less than 100, indicating that they are considered terminal courses that potentially do not satisfy degree requirements. One of the reasons for so categorizing some vocational classes is to allow students the option of taking courses for noncollege credit, normally during evening hours, for considerably less tuition.

There is some articulation and coordination between high schools and postsecondary institutions. Many high school students attend postsecondary institutions during school hours to participate in vocational education classes. For example, this year there were some 100 students from three school districts attending Utah Technical College at Provo. Most of them come for 3 hours and then spend the rest of the day at their own high schools. Utah Technical College at Provo actually has special classes for high school students. There are indications that there are at least 100 other students who would like to attend the school, but there just isn't room, or the high school students are not permitted to take certain classes which are reserved only for postsecondary students.

The College of Eastern Utah and Dixie College have high school students taking vocational education classes. Utah Technical College at Salt Lake has no formal program for high school students, although there may be a few students of this age who are taking regular postsecondary courses.

WYOMING

The designation of the State's seven community colleges as area occupational facilities formed a base for postsecondary occupational programs; likewise, the community college system coordinated and articulated secondary, postsecondary, and adult programs.

Northwest Community College, Powell, and the Cody School District continued cooperative arrangements whereby high school students could enter occupational programs at the community college.

In like manner, Western Wyoming Community College, Rock Springs High School, Green River High School, and Eden-Farson High School formulated a cooperative educational service. The three high school districts and the community college developed a comprehensive occupational education program providing articulation from junior high through the community college level. As cited above, the specific programs highlighted were industrial maintenance, data processing, office occupations, and construction occupations.

A program, allocated from the State department of education and demonstrated in the Riverton school system with cooperation of the Central Wyoming Community College demonstrated an interdisciplinary, articulated approach to occupational education. The program's major objectives emphasized elementary attitude development, junior high school career orientation, career exploration, senior high career skill development and postsecondary job entry program culminating with job placement.

To What Extent Is Vocational Education Accessible to All Who Desire It at the Postsecondary Level?

ALABAMA

There were 27 postsecondary vocational-technical institutes in the State. Transportation is readily available to any potential student. The range of courses offered is 6 to 24, with an average of 15 courses per school.

There are also 16 junior colleges offering associate applied science degrees in occupational programs.

Of the total population aged 18 to 24, postsecondary institutions enrolled 51.9 percent during the year. Of this number, 4.9 percent were enrolled in vocational education.

ARIZONA

The Arizona community colleges direct postsecondary education. Also, the Arizona community colleges are the designated area vocational schools for all vocational programs at the secondary and postsecondary levels. All geographical areas in Arizona are served by the community college districts. Special emphasis is placed on serving in such areas as Indian reservations, areas where you unemployment and dropout rates are high, as well as the urban high density population areas.

> A new community college district has been established in Navajo County, making the eighth district in the state. Mohave Community College is currently operating out of the county high school district. It is anticipated that it will be the fiscal year 1974 before it becomes a part of the state system. During the fiscal year 1972, eleven community colleges were operating under the state system. (Quoted from the Division of Vocational Education, Descriptive Report, FY 72)

The preceding quote summarizes the status of the community colleges in Arizona.

Approximately 58 percent of the total Arizona community college student enrollment is involved directly in vocational education. Last year 29 percent of the postsecondary student enrollment was involved in vocational education: twice the enrollment, then, is now directly involved in vocational education in the State at a postsecondary level. The total duplicated enrollment for postsecondary vocational education in fiscal year 1972 was 38,318. Postsecondary vocational education grew more than any other segment in vocational education within the State of Arizona last year. This growth closely identifies the community college system with the concepts of occupational education.

Of all the State objectives concerning vocational education in the postsecondary school, the most successful was the acceptance of the cooperative programs. The stated objective was that 11 postsecondary schools, involving 1,020 students, would implement cooperative programs. Because of the wide acceptance of cooperative education in the community college districts, 21 programs were begun. This increase in cooperative programs may be attributed, first, to the methods of placement and coordination utilized by the community colleges; and, second, to the skills application method of cooperative education which permits more teachers to work within cooperative programs.

ARKANSAS

In 1971–72, the designated capacity of the State's postsecondary vocational schools was 3,342 students, at a cost of approximately $1,669 per student per year. The board proposes to construct four additional postsecondary schools with an average capacity of 175 students (somewhat lower than capacity of most of the existing schools). The council believes that such low-capacity schools are extremely inefficient, and has suggested ways and means to increase capacity. Furthermore, the council has urged the board to expand secondary school occupational education rather than postsecondary.

COLORADO

Postsecondary vocational enrollment increased 8 percent to 14,010 students. This represents 44 percent of the total postsecondary enrollment in community colleges, junior colleges and area vocational schools.

Almost 20,000 persons were enrolled in adult vocational education programs during 1971–72. This was an increase of only 2.3 percent over the 1970–71 enrollment. The 1972 plan had projected an increase of 12 percent over the 1970–71 enrollment.

KANSAS

Postsecondary Students

The 1970 Federal census lists 97,115 students between 18 and 24 years of age, enrolled in school.

A survey of the guidance and pupil personnel section indicates that about 19 percent of the high school graduates will enroll in community colleges and about 4 percent of these graduates will enroll in an area vocational-technical school. Assuming that these percentages will hold for the 18- to 24-year age group, 18,452 students will be enrolled in the community colleges.

National data show that about one-third of the community college students will be enrolled in terminal programs. Because not all terminal programs are vocational and the level of funding of Kansas community colleges for vocational education is not as strong as in some areas of the country, this one-third factor was reduced to an estimated 20 percent.

Applying these percentages to the total number of students enrolled (97,115) gives 3,690 as an anticipated enrollment in community college vocational programs and 3,885 as an anticipated enrollment in area vocational-technical schools. This is a total of 7,575 students that should be served in postsecondary vocational programs.

The State plan for vocational education in 1972 projects an enrollment of 7,500 students in 209 postsecondary programs. On the basis of the best data available, it must be concluded that the extent of postsecondary offerings is fairly close to the estimated demand.

LOUISIANA

The postsecondary system is composed of 33 schools, which are State schools in the true sense they do not have a local or regional governing board and are financed almost exclusively by the State and Federal funds and are responsible directly to the State board.

There appears to be a need for stronger coordination of programs among these schools. Enrollments in some are quite small which raises the question of whether they are sound economic program units. Some discussions have taken place about possible regionalization or districting. A very strong point in their present organization is that they are State operated without geographical boundaries which should make it possible for the State to develop a master plan and to make whatever changes seem necessary to improve the educational services to youth and adults in an efficient manner.

Some secondary students are served in these schools. This is commendable especially when the schools are used to provide more specialized work than is available at the high school level. Care should be taken that they are not used as the way out for high schools for their problem youth.

The secondary vocational education programs are conducted in the 64 parishes which include two city systems making a total of 66 administrative units. These units operate under a parish board of education which administers funds raised through local taxes. In addition, they receive funds from State sources.

The 1972 State plan for the administration of vocational education projects increases at only a nominal rate. While projections for increase are probably realistic in terms of present program restraints as a result of limited facilities and financial resources, they seem too conservative to meet either employment needs or provide training opportunities in great enough numbers to meet the demands of those who seek to be trained.

New and expanded programs should be considered to meet the needs of the citizens and the economy of Louisiana. Interviews with State department of education staff reveal that many students cannot be enrolled in present programs in most of the 33 area vocational-technical schools.

MARYLAND

Postsecondary enrollments in vocational technical programs rose from 13 percent (12,758) of total community college enrollments in 1971 to 33 percent (19,522) in 1972.

MASSACHUSETTS

In the postsecondary occupational areas the offerings are generally adequate to very good but too few persons are being handled. Enrollments are 33 percent under the State's 1972 goal. It is believed that additional support and facilities in the community colleges plus the currently increasing facilities in the regional occupational-technical schools, and better full-time utilization of all such facilities—including use of private schools—can solve the shortage of opportunities at the postsecondary level. But this will take time and substantial effort.

MICHIGAN

In a study conducted by the Institute for Research on Human Resources of the Pennsylvania State University, contracted by the Council, it was found that occupational education courses in postsecondary schools cost considerably more to offer than liberal arts courses. The differences in costs varied depending on the size of the institution and the occupational program. It was found that vocational-technical and health occupations were the most expensive programs. As a percentage of liberal arts course costs, the occupational education courses ranged from a low of 110 percent to 174 percent per contact hour. Using the credit hour as a base, the differential ranged from a low of 181 percent to 248 percent. These data have been submitted to the State department of education to assist staff to more equitably reimburse postsecondary occupational programs, bring a greater measure of accountability into funding practices, and to provide a base for future benefit-cost or cost-effectiveness studies.

(Editor's note: In a national study of vocational program costs, (Erik L. Lindman, "Financial Support for Vocational Education in the Public Schools" (Los Angeles, University of California, September, 1972)), using the annual student contact hour as a base, it was found that in community colleges, the most expensive program is in trades and industry. In rank order of costliness, are health, agriculture, home economics, distributive, office and technical. In terms of average costs per program, whereas nonvocational programs averaged at $1.49 per annual student contact hour, vocational courses ranged from a low of $1.97 (technical) to $2.71 (trade and industry), with health education at $2.40.

MISSISSIPPI

We had 8,268 enrolled in postsecondary vocational education programs in fiscal year 1971. This is an estimated 1.7 percent of the population between the ages of 15 and 24. The State plan projected an increase of 0.3 percent in enrollment for fiscal year 1972. The actual enrollment based on the annual report for vocational education ending June 30, 1972, was 8,812 or 2.17 percent of those students between the ages of 15 and 24 enrolled. The projection for fiscal year 1972 was 0.17 percent under the actual percentage of students enrolled, which indicates realistic planning by those responsible for programs on the postsecondary level.

It is felt that in the very near future enrollments will increase appreciably due to several factors; namely: (1) As the vocational guidance staff in postsecondary facilities continue the intensified programs of guidance they now have underway, emphasizing placement on the job, this should cause more students to enroll in postsecondary training; (2) as more and more students are reached on the secondary level it is expected that a very large percent of these students will enter postsecondary programs for advanced or specialized training; and (3) a great deal of emphasis is being placed on "start-up-training" for new and expanding industries locating in our State, as well as those existing industries, in order to provide them with trained personnel to supply their needs. It is the opinion that with job availability, a well-planned and a well-organized guidance program geared to the needs of the students, as well as to the needs of the industrial community, and with the 25 junior college centers offering a diversified curriculum touching the lives of the people in every community in our State, that we are on the threshold of making even greater strides in vocational-technical education on the postsecondary level.

NEVADA

The stated objective, to attain 2,867 enrollments (inclusive of all service areas excluding useful home economics) during fiscal year 1972, was not fully met. However, 1,981 enrollments were attained, representing 69 percent enrollment attainment, based upon original projections.

The stated objective, to attain 722 student vocational program completions during fiscal year 1972, was not fully met. However, 505 student completions were attained, representing a 70 percent student completion attainment, based upon original projections.

The stated objective, to operate a total of 99 programs during fiscal year 1972, was not fully met. However, 71 programs were operated, representing a 71 percent operation attainment, based upon original projections.

The stated objective, to employ 197 vocational teachers during fiscal year 1972, was not fully met. However, 166 vocational teachers were employed, representing an 84 percent teacher employment attainment, based upon original projections.

The stated objective, to enroll 60 percent of the total postsecondary student enrollment (exclusive of baccalaureate degree level programs) in vocational education classes during 1972, was not fully met by community college enrollments. However, community college enrollments in vocational education programs attained a 56 percent level, and the combined efforts of local school districts attained 100 percent (postsecondary) enrollment in vocational education programs.

NEW JERSEY

Ever since the department of education split into two educational authorities—one, the State department of education to oversee public instruction in kindergarten through 12th grades; the other, the State department of higher education to oversee public instruction in schools beyond the secondary level—there has been a growing controversy over which department should be responsible for vocational education at the postsecondary level.

New Jersey currently has 15 county community colleges and 35 area vocational schools. All of the community colleges and 21 of the area vocational schools have vocational offerings at the postsecondary level. The number and types of programs, as well as enrollment, vary widely. The council notes that the definition of postsecondary education is a problem which precludes a clear description of the extent of the postsecondary vocational program enrollments in the two systems.

The council has listened to, participated in, and made recommendations for settling the debate over who should educate those persons who are designated as postsecondary students. The council is not satisfied with the progress made by the two systems in attempting to develop a cooperative approach to public postsecondary education.

PENNSYLVANIA

Postsecondary programs in Pennsylvania have developed largely through the Pennsylvania State University branch campuses, private licensed business, trade and technical schools, vocational education adult preparatory classes and special federally funded programs, and in more recent years, in the community colleges.

It seems apparent that there has been little coordination of program planning between the several types of postsecondary programs. Likewise, the matter of articulation of curriculum between the secondary and postsecondary programs is very limited. This is somewhat understandable because of the quite different administrative organizations of each of the respective programs. However, all of this reemphasizes the extreme importance of a unified statewide planning system that takes into account all of the training agencies and programs with respect to trained labor supply and the total statewide labor market demands by occupations or clusters of occupations. Without this kind of complete unified planning, there will be the continued growing hazard of unnecessary and costly overlapping and duplication of programs at all program levels.

The great need in the postsecondary level is an information program or system which would assist each type of program in serving better its particular student group and still avoid unnecessary, costly duplication and overlapping. Each type of program could share and use common labor market and program information so that all programs could be coordinated more effectively in a somewhat unified system of postsecondary occupational education. Also needed is a group of committees representative of each major type of postsecondary program so that unified planning might become a reality. We believe that an essential aspect of such unified planning is a State occupational education bureau which is authorized at a high administrative level to work readily across present artificial school grade level constraints.

In terms of the total population of the 18 to 24 year age group in 1970 (1,257,249), and the still larger population group, 25 to 54 (4,198,309), the grand total enrollment of 98,176 (about 7 percent of the 18 to 24 year age group), and the output of 46,130 graduates in the light of an annual labor market demand of 137,000 is far from adequate to meet even the replacement needs alone.

As compared to the secondary output, graduates of postsecondary and adult levels in 1971 enjoyed both a higher degree of overall

[redacted]

employment and employment in the field for which trained. This lower rate of slippage between training and employment, however, may be due to the greater age and maturity of postsecondary and adult students. In addition, it is quite likely that many postsecondary graduates already held jobs and entered training to increase work competence, in their chosen field. As for adult program completers, prior experience in some field could be instrumental in achieving subsequent employment.

RHODE ISLAND

The junior college provided vocational education programs at its Providence campus, but limited space curtailed the number of courses offered. The opening of the Warwich campus in September, 1972, was expected to relieve this situation as will the development (planned for fiscal year 1975) of a Blackstone Valley area campus in Lincoln.

Postsecondary (2 year) enrollment did not grow in fiscal year 1972, however, largely due to facility limitations. The anticipated opening of the second Rhode Island junior college campus, located in Warwick, was expected to enable a significant increase in students served. But the number enrolled during this reporting period, 1,058, was virtually the same as the previous year. This figure represented 20 percent of the total public postsecondary (2 year) population.

SOUTH CAROLINA

There are more postsecondary occupational programs available to the citizens of the State than ever before. While the number of physical institutions has remained essentially constant, the number of program offerings in the 17 combined technical and regional TEC centers has increased markedly during the past year. While there are other program offerings operated by the different agencies within the State, the postsecondary 1- and 2-year diploma and degree programs of the TEC system are considered as the mainstay of the educational postsecondary occupational opportunities for the purposes of this report. The average number of 1- and 2-year associate degree or diploma programs offered in the TEC centers has increased within the past year from approximately 18 to over 20 programs. The increase of programs from 1971 to 1972 is approximately two at each center. The last of the planned 13 technical education centers is becoming more fully operational than at this time last year, and the general pattern has been that in virtually all of the TEC centers and regional centers, including Williamsburg Manpower Center, additional programs have been added, which accounts for this increase.

With over 90 percent of the population within the generally accepted commuting radius of 30 miles of a TEC center, there are a considerable number of possibilities and options from which a person may choose. For the technical education system, as of early fall 1972, there were a total of 113 approved 1- and 2-year diploma and associate degree programs. Of these, 54 were 2-year associate degree programs. It is interesting to note that the four regional centers by the technical system, including the Williamsburg Manpower Training Center, have converted all of their programs or made appropriate changes so that the programs in these centers are now all regarded as 1-year programs. A variety of 1- and 2-year degree and diploma programs is offered at the 13 TEC centers, depending on the perceived need of the community, the local board and administration, and other factors.

TENNESSEE

The State system of 27 area vocational schools are strategically located so that 90 percent of the population resides within 30 miles of at least one of the training facilities.

The State's three technical institutes are located in three of the four major population areas of the State.

The nine community colleges, all offering a number of technical programs, are also located to serve the major population centers.

VIRGINIA

We have observed that the greatest growth in vocational enrollments is occurring at the postsecondary level—in the community colleges.

It should follow that a high level of construction activity and program development should be taking shape in the postsecondary level of vocational education. This situation is confirmed by the fact that of the 23 community colleges, four are in the planning or just completed stages and the remaining 19 are all in the process of building additions.

Postsecondary Opportunities—Community Colleges

Because of the rapid development of the technologies and resultant changing pattern of employment opportunities in the Commonwealth, the subsequent increase in the demand for qualified workers in the new industrial and occupational categories, it is imperative that vocational and career educational programs be expanded and modernized to meet today's needs.

It is, therefore, recommended that consideration be given to new and emerging para-professional occupations, particularly in the areas of:

Social service occupations.
Recreation and parks specialities.
Public service administration.
Allied health technologies.
Environmental technology.
Public safety.
Fire science.
Library and teacher aids.

There is evidence that instructional planning and programming in these areas are emerging at the postsecondary school level, especially in the community college program. Steps should be taken to insure that curriculum in these areas is relevant, based on occupational analysis, behavioral objectives, the job market, and followup procedures.

WYOMING

The State department of education granted the seven community colleges the responsibility to provide postsecondary occupational education. Therefore the institutions were extensions of all secondary occupational instruction. The State plan estimated that 60 percent of Wyoming's population live within a community college district; similarly, they estimated that 57.9 percent of the State's population live within a 40 mile commuter range of a community college. Thus, community college occupational programs were reasonably well located to serve the State's citizens.

PUERTO RICO

In the postsecondary level, out of 11,650 graduates in 1970–71, an average of 42 percent were employed in the occupation for which they were trained, 18 percent working in a related occupation, and 40 percent were still looking for a job 6 months after having finished their training.

It is significant to point out that employment for technical courses graduates was the highest (77 percent), followed by health occupations (68 percent). Occupational home economics had the lowest employment rate (4 percent). Again, employment in agricultural work was very low (23 percent). Graduates from occupational home economics working in related occupations had the highest (38 percent).

To What Extent Has the Career Education Concept Been Accepted and Implemented by the State Departments of Education, the State Advisory Councils on Vocational Education, and the Local School Systems?

ALABAMA

There is little evidence of any concentrated effort by school systems to provide occupational awareness and orientation at the elementary school level.

ARIZONA

All of the 13 projects in career education in Arizona have been funded by State block grants. All projects have been established by the use of specific proposals which were evaluated before the allocation requested was granted, a procedure consistent with the concept of block grants. The proposal procedure toward block grants allows State authorities, school boards, and administrators the flexibility needed to administer the program under the grant. Writing career and vocational education proposals also eliminates the overlapping of programs and services by requiring that the proposal writers research the needs of their communities. The only federally funded career education project in Arizona is the one in the Mesa Public Schools. This project is a result of a block grant warded from the U.S. Office of Education.

Eleven of the thirteen career education projects in the State concern themselves directly with the inservice training of teachers and counselors. This training is in cooperation with the State universities, a relationship that allows the participants of the inservice workshops and training sessions to receive college credit. The remaining two career education projects that do not have inservice training of teachers and counselors are those projects which do not have a great amount of student involvement. The project at the ASU Bureau of Broadcasting, a television experimental program, and the Phoenix Career Education Council in the Phoenix Union High School District are career education projects that do not directly utilize classroom situations. Career education currently exists in grades K–12 in Arizona, but extensive planning is underway and encouragements is being given to state legislators to include the Arizona community colleges in the career education concept with the university systems included in the future.

The Arizona State Department of Education and the Division of Vocational Education have in the past year developed a uniform definition for career education, as follows:

> Career education combines the academic world with the world of work. It must be available at all levels of education from kindergarten through the

university. A complete program of career education includes an awareness of the world of work, broad exploration of occupations, in-depth exploration of selected clusters, and career preparation for all students. This calls for all basic education subjects to incorporate career education as the major activity throughout the curriculum.

ARKANSAS

Reaching only 4 percent of all elementary students with career-awareness programs is to slow a rate of progress. Career-awareness programs in the elementary grades are essential if the State is to initiate a comprehensive educational effort. We must stop the rhetoric and start to really implement the concept.

CALIFORNIA

A State career education task force has been established and ten demonstration projects are in effect throughout the State. The council notes, however, that no clear definition for career education—nor have the relationships between vocational education and career education—been established at the national level. The California State plan does provide such definition and relationship.

The council expressed considerable concern that the financial support for vocational education not be diluted by siphoning off funds for career education.

COLORADO

The council supports the concept of career education as a total education program, not just a vocational effort.

The State board for community colleges and occupational education and the State department of education have each appointed a career education coordinator on a part-time basis to provide statewide direction to the effort. Despite this, the council reports that no leadership has been provided local school districts, the Colorado Commission on higher education, nor the various teacher training institutions about preservice and inservice teacher training programs. Only one school district—with some 700 students—has developed a comprehensive career education program.

DELAWARE

The council recommends that the State board of education, the State superintendent of public instruction and the department of public instruction continue to consider career education and its primary component, vocational education, as the number one priority in the State; that they exercise their positions of leadership to influence change, where change is necessary, innovation, when traditional practices do not produce desired results, and additional support, which is always necessary; that they reinforce their efforts to secure State and Federal funds, local acceptance and support, and professional, business and public enthusiasm to make Delaware the model State in career education.

DISTRICT OF COLUMBIA

The District of Columbia was off to an early start with its task force's plan for career development in 1969. During the 1971–72 school year, the Superintendent implied strong support to the concept in a special report to his board. Insofar as implementation is concerned, the council finds very little has happened in the way of expanded or improved opportunities for career education. As a matter of fact, the council views the D.C. career education program as still in the staging phase.

FLORIDA

The council believes that the career education concept can make a significant contribution to American education. In taking this position, the council describes career education in the following manner:

1. Career education is a total concept or philosophy of education rather than a program or a series of activities. Therefore, it is not a synonym for vocational education, occupational guidance, or general education.

2. Career education does not conceive of academic and vocational education as being competitive but rather as complementing each other and being comingled, one with the other in practice.

3. Career education requires a massive change in the curriculum including subject matter, teaching techniques, guidance, facilities, equipment, and administration. This change is reflected in the curriculum through the introduction of life as it is lived in our society as the focal point in teaching. Knowledge, attitudes, and skills are taught in relation to their use by the individual as he functions in and serves society.

4. Career education is committed to the preparation of students for the world of work whether the career be professional or vocational. This commitment embodies a concern for the successful employment of students upon completion of the institutional phase of their education. Career education, therefore, considers job preparation and job placement as integral parts of the educational process.

5. In making these changes in education, community interests will not only serve as advisors and counselors to educators, but also these same community interests will be directly involved with students in the learning process.

6. Career education should:

a. Motivate students by bringing realism and understandable goals into the educational process.

b. Align education at all levels with the community and with the individual's role in the community.

c. Bring all institutions of society, both public and private, into a coordinated role in education through the sharing of resources and manpower for planning and implementing a career concept in education.

d. Create an understanding of and an appreciation for the contribution of the careers that different individuals pursue.

e. Make meaningful as a complete whole the divergent subject matter that composes the education of each student.

f. Develop an awareness among students that education is fundamentally a search for meaning in life.

Career education conceived in these terms has the whole-hearted support of the council.

IDAHO

For the most part career education is in the planning stages for Idaho students.

The State board of education has directed the State department of education and the State department of vocational education to develop a career education plan to redirect the present educational system of Idaho, as it relates to the world of work. By the joint effort of the two departments, a guide to career education "A Comprehensive Educational Program for the State of Idaho," is being developed.

ILLINOIS

Through research and curriculum projects, Illinois has led the Nation in developmental activities relating to career education. While initiated by the division of vocational and technical education, responsibility for administration and leadership at the State level remain unclear. There is continued absence of any meaningful plan to implement the outstanding developmental work.

The council also calls for significant funding from sources other than the limited vocational education funds.

KANSAS

Extent of Career Education

Career education is relatively new in Kansas. The exemplary programs at Lawrence, Clay Center and Kansas City have completed their second year of operation. New programs have been started at Liberal, Wichita, and Beloit and a consortium of 16 rural schools in northwest Kansas has completed its first year of operation. It is estimated that approximately 31,200 students are involved.

In the fall of 1971, the enrollment in K–12 was 493,614. The estimated number of students involved in career education is approximately 6 percent of the total enrollment.

MARYLAND

The Governor, the State department of education, and the council strongly support the concept of career education, and a number of school districts have initiated pilot projects. There is a considerable concern, however, that this new emphasis may divert both interest and funds from existing programs unless special additional funding is provided.

MASSACHUSETTS

The career education concept is still in the pilot stage of implementation. The associate commissioner of occupational education has declared career education of the utmost importance, but any real progress will have to depend on both the total involvement of the department of education and provision of sufficient funds. As yet neither has been forthcoming.

MICHIGAN

The council noted and commended the efforts of the State department's vocational education and career development service to develop and implement the career education concept. This effort is in accordance with the State board of education's three primary objectives for vocational and technical education:

1. To provide an introduction to the world of work for every student;
2. To guarantee that no student entering high school leaves without the opportunity to obtain a salable skill regardless of his ultimate career objectives;
3. To provide programs of adult continuing education for all citizens whenever they need and desire it.

The council wholeheartedly supports the career educational concept, and has begun to promote it throughout the State.

MISSISSIPPI

The career education concept is quickly becoming a very integral part of occupational education in Mississippi. We now have 10 administrative units within the State offering career education. The reception has been satisfactory to the leadership within the State and they have begun to integrate the career curriculum into the existing curriculum. The student has received the new concept overwhelmingly. At present vocational education is offering the leadership for career education. The thinking is that we must encourage a team approach involving all of education if we are to reap the benefit from the program that we should. We feel that career education is everybody's business and everyone's responsibility if we are to acquaint the student with himself and the world of work and assist him in relating to that work.

MISSOURI

The concept of career education has taken hold within the State department of education as evidenced by the change in name from vocational division to that of career and adult education. The council urges the division to exert strong leadership in developing the cluster concept of vocational training which can be incorporated into a career education program and fed into secondary school training in broad job families.

NEBRASKA

The council was the first agency in the State to take an official stand on career education. "Goal 1, Item 1," (a) through (e), on a new emphasis for education, made specific recommendations which have been only partially implemented. A State task force and chairman for career education have been established within the department of education. Several meetings have been held with more planned for the future.

NEVADA

Career education concepts generally appear to be well accepted among local educational agencies. Efforts toward implementation of such concepts has been strictly on local agency option to this point in time. Several local agency projects encompassing career education have been funded with Federal dollars, in cooperation with the vocational-technical education branch of the State department of education. These projects have been aimed at professional staff orientation. There are indications that several projects projected to be funded in 1973 will encompass a broader rationale base and may include career education implementation phases and curriculum materials production.

NEW MEXICO

The State department of education has adopted as its top priority the adoption of the career education concept in the schools as its major thrust for redirecting New Mexico's educational system. Ten State-funded pilot programs were in effect during 1972. They varied from a series of career guidance classes in a rural school district to serving some 10,000 students in the north area of Albuquerque. Funding was provided not so much by additional monies but rather by directing existing resources.

Local educational agencies have generally demonstrated enthusiasm concerning the concept, but many—particularly in the rural areas—view this redirection task as overwhelming in terms of existing expertise and resources. Furthermore, the verbal commitments by local school officials have been more emotional than rational, as indicated by lack of implementing funds and practices. The delivery system for career education is still in an embryonic stage throughout the State, but it is hoped that the pilot programs will be sufficiently successful to warrant full funding so that by July, 1973, every junior high or middle school will be providing all students with career information, orientation and exploration as an integral part of the regular curriculum.

NORTH CAROLINA

The career exploration program began in North Carolina in February, 1970. During the 1970–71 school year, 43 career exploration projects involved approximately 40,000 students in the 6th, 7th, and 8th grades.

An evaluation of the program was completed and reported[1] in July, 1972. The first three recommendations based on the findings of the evaluation attest to its success. These are:

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[1] Jesse S. Clemmons, "An Evaluation of the North Carolina Career Exploration Program," occupational research unit, division of research, State department of public instruction, Raleigh, N. C., July, 1972.

1. The overall concept of career exploration in the middle grades is a viable alternative for North Carolina and should receive continued emphasis as an integral component of a comprehensive program of occupational education.
2. More emphasis should be put on developing a program of career exploration aimed at strengthening student achievement in the cognitive domain—namely, knowledge about a wide range of occupations.
3. Learning activities utilized in the career exploration program are satisfactory and should continue to be exploited as much as possible.

Cox[2] investigated the effectiveness of North Carolina's introduction to vocations program. With experimental and control groups he looked at student achievement, attitudes, opinions, sex, grade point average, and occupational and educational plans.

Significant associations were found to exist between changes in: (1) educational plan of students; (2) occupational plans of students; and (3) high school program plans. In addition, 75 percent of the introduction to vocations students indicated that they agreed or strongly agreed with 30 major functions of the introduction to vocations program.

Findings from the study indicated that the introduction to vocations program was effective in reaching its stated objectives.

Suggestions were made that more schools should include the program in their curricula and that more students should be encouraged to take the program.

NORTH DAKOTA

A career education model (K–12) is being developed in the Bismarck district, serving all its 5,500 elementary and 2,500 junior high students.

Figures are not available as to the extent career education is offered in other schools in the State.

The council considers career education concept as an excellent method for providing instruction on career planning and decisionmaking in the instructional programs of the schools.

OKLAHOMA

Oklahoma has a minimodel for career education in the San Springs system. The extent to which career education is provided to all elementary and middle school pupils, on a statewide basis, is negligible. Not only is the revised and revamped concept new to patrons, it has not had any general impetus toward implementation. World of work programs in the State' two largest systems, Oklahoma City and Tulsa, are a beginning in orientation. Funding does not presently satisfy demand for secondary and postsecondary programs, leaving little for career exploration.

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[2] Walter L. Cox, Jr. "An Assessment of the Effectiveness of North Carolina's Introduction to Vocations Program," doctoral dissertation, department of industrial and technical education, North Carolina State University, Raleigh, N.C. 1972.

OREGON

Career education should be central to the thrust of all education in Oregon.

Every student in the school system, grades kindergarten through college, should have an opportunity to be exposed to and learn about the world of work; to explore opportunities, to make career choice with the opportunity to change directions at any time, and finally, to develop a marketable skill in keeping with his aptitudes, interests, and desires.

Schools should accept the responsibility for the successful placement of the student in his next step in life, whether it be continued education, full-time employment, or some special option.

RHODE ISLAND

The year 1972 was when career education came to Rhode Island. The U.S. Office of Education's Career Education Model III was placed in Providence and immediately started to link with the community in providing services to a home-based population. The State department of education also made several minigrants (awards of up to $3,000) to local educational agencies to encourage career awareness, orientation and exploration programs in elementary, middle, and secondary schools.

The most ambitious effort involving the K-12 school population, however, was an exemplary grant award to the East Providence School System for a program scheduled to start in September 1972. Approximately 850 students were to be enrolled in the project designed to test the hypothesis that an individualized, learner-centered, career-oriented program is superior to the traditional group-oriented subject-matter-centered approach. The program was to provide career awareness, grades K-6; broad career exploration, 9-10; and career preparation, 11-12.

One factor offering promise for program success was the assignment of a full-time State department of education staff member—reporting directly to the Associate Commissioner for Academic Services—to coordinate the project.

SOUTH CAROLINA

With the current emphasis on career education from the national level, it is anticipated that career education will have a direct effect on vocational education in the secondary schools, since vocational education is considered only a part, but a critical part, of career education. With enactment of the Education Amendments of 1972, part B of title X of that act implies and directs that occupational education at the postsecondary level will also be considered as a critical part of career education. In career education, the basic concepts are that students should be exposed to a more realistic view of their many occupational opportunities. This exposure should begin early in the student's school life, and intensify as the student progresses into the middle and secondary school years. Following a period of occupational exploration, there should be more emphasis on appropriately selected vocational programs. The entire program would be oriented to assisting each student toward selecting a more realistic goal and providing each with an option of further education and/or job entry following completion of the secondary school program. For the students who do not plan to continue formal education beyond high school, and even for some who do, career education would enable each student to possess a salable job skill upon leaving the school program. In this area of increased technological advancement, it is noted that an increasing number of persons will need occupational training beyond high school, and at something less than a baccalaureate level in order to obtain adequate employment. Technical education then becomes another key link in the career education chain.

The prevocational education programs operated under the aegis of vocational education are a possible first step in a layered approach to establishing career education. While, by State board of education policy, prevocational education is required to be offered in each secondary school, this touches only part of the students; it is not a requirement for all students but rather a required offering within the schools. According to recent data from the State department of education and the office of vocational education, there were 11,011 students enrolled in federally and State-funded prevocational programs in the public schools. This represents only approximately 20 percent of the number of students in last year's ninth grade class, which was reported as 56,123 students. The reported enrollment of 11,011 students also represents more than one grade level, including grades 8, 9, and 10. The assumption is made that most students represented in the data may take the prevocational program at the 8th grade level, and not necessarily repeat it in the 9th grade or make an attempt to take the prevocational program in the 10th grade if an opportunity is not provided earlier. Considerable increase will be needed if the prevocational programs are to provide a group guidance function for a realistic percentage of the students who need this experience.

A realistic approach to career education is being initiated during the 1973 school year in the Lexington School District No. 3 as an exemplary project. This project promises to offer localized experience to other districts within the State which may have immediate application. One of the first career education-type programs in the State, predating the Lexington project, was in the Kershaw, Lancaster, and Chester school districts. Other school districts are pioneering in this program concept, utilizing funds from various sources. It must be concluded, however, that career education is not yet available except to a very limited number of students.

The 1972 ninth grade class was reported as slightly over 56,000 students. If one assumes a balance of in-and-out migration and compares this to the 1972 12th grade class, an attrition of 18,800 students is derived. This figure alone is larger than the enrollment in prevocational education by 80 percent. If one then adds the approximately 24,000 of the 1972 ninth grade class who are not expected to enter college, one can see the great need for continued expansion of prevocational education. Of the more than 56,000 students in the 1972 ninth grade class, a total of up to approximately 43,000 students may be expected to enter the labor force with less than college preparation.

SOUTH DAKOTA

The board for vocational education supports the integration of vocational education into a total career education system. Several partial pilot programs have been initiated at the secondary level, but only one school district is experimenting with the K to 12 concept. Eight elementary schools are included in the project. The Council supports the career education concept.

TENNESSEE

There are four pilot projects in Career Education from K–12 in the State. Two of the projects have developed an "Elementary Teachers Handbook" and "Guidelines for Elementary Programs." The division of vocational education has issued a position statement subscribing to the concept of career education, but the Council feels the division is reluctant to exert the necessary leadership to expand the concept throughout the State.

Although much rhetoric has been directed toward career education, and U.S. Commissioner of Education has assigned top attention to career education, the Council finds disturbingly little evidence of substantial commitment in dollars and program priorities which can make the concept viable. The Council further cautions that care must be exercised to prevent career education from becoming a means for spreading the already inadequate vocational education funds over an even broader area of service.

TEXAS

For the most part the career education thrust in the State is in its infancy. Exemplary programs have been in operation for 3 and 4 years, and have grown to 30 programs. Houston has a K–6 program involving 29,000 students and plans are to go systemwide. Dallas and Fort Worth are working on joint efforts in this direction.

Some of the smaller communities have developed education programs delivering educational experiences that embrace the majority of concepts in career education, but perhaps would not necessarily identify them as such.

The basic consideration is that career development is the result of interaction of the home, community, and educational experiences. These resources influence the individual in varying degrees and intensities from infancy throughout life. The opposite ends of the spectrum could be called formal and informal but development is a continuous process and may be positive or negative.

The emphasis on levels in the following model suggested by the Council should not indicate an inflexible lock-step with age, years of schooling, semesters, credits, and work entry. The levels provide an element of evaluation of achievement in career development and preparation for employment. The model assumes that all have an eventual goal of entering the world of work somewhere on the broad spectrum of employment. The model also suggests that individuals move from formal preparation to cooperative development to full-time work or any combination of these, and that options can be exercised without penalty or prejudice.

The model also considers basic educational skills and experiences as the foundation for career development and that their acquisition is simultaneous with career development for maximum effectiveness; that individuals will require varying ratios of basics and specifics to prepare them for the career to which they aspire, depending upon the sophistication of skills required.

K–6 Career Awareness

This phase of the model should help the individual develop an awareness of careers, understanding and appreciation for the dignity of work, and the personal and economic relationships of work. (As this phase relates to education, it would require ancillary personnel and resources with the principal responsibility resting with the teacher incorporating these objectives into all educational experiences.)

6–8 Career Orientation and Investigation

(The levels shown are very flexible because of a variety of structures of levels in schools.) In this phase of the model, the individual would gain a wide exposure to a variety of careers, their requirements and rewards. The individual would begin to relate these to his own interests, abilities, aptitudes, and circumstances. In addition to the teacher, more guidance services would be required and some additional instructional personnel, as well as materials and instructional resources.

Career Exploration

In this phase of the model the individual should have "hands on" experience in laboratories, shops and/or community resources in as many clusters of occupations as possible in order to further validate his own personal interests, aptitudes and abilities. The total school, home and community resources will be needed to give exposure to the multitude of careers.

9–12 Preparation for Careers

With the awareness, orientation, investigation, and exploration phases of career development as a background and guide, the individual should be prepared to give more specific direction to preparation efforts. These directions will be many and require comprehensiveness of offerings to support the career goals of all individuals. Some individuals may move toward rather specific skill development through vocational programs. Some may pursue skill development within a cluster of occupations for entry into apprenticeship or other on-the-job training. Preparation may be achieved through laboratory and/or cooperative part-time training or work experiences.

Postsecondary and/or university preparation may be required in the career development plan of others. Regardless of the level of formal preparation needed or desired, the options should be left open to the individual at all times and levels. Labor market supply/demand information should be used by all individuals at all levels to assure reasonable expectations of employment and such information might well dictate changes in preparation. Even though this may be disappointing, it is much less expensive and frustrating than preparing for a career in which the individual cannot be employed.

13–16 Preparation for Careers

Preparation at this level will normally be quite specific and will require substantial flexibility of institutions to accommodate a series of educational and work experiences adjustments in directions of career preparation. The role of institutions should be carefully related to programs in previous institutions to prevent duplication. Again the labor market information is critically important. Individuals will leave this phase at various levels through entry into work with certificates, associate degrees, bachelor degrees, and some will continue for advanced degrees before entering the work force.

Adult

The education community must accept the responsibility of the multitude of needs of our adults in education, regardless of the factors that generated these needs and must be responsive to these needs, whether they be basic education, retraining, upgrading, avocational, or others.

This phase is currently in critical need of State legislation and appropriation, to fully bring equal opportunity to many disenfranchised adults. This phase is needed to give more mobility within the work force to enhance its effectiveness and efficiency.

It should be noted on the model that adult and continuing education may occur at all levels of achievement and career preparation.

UTAH

A "world of work" program has been in the development stages in Utah for the past 2 years. The purpose of this program is to develop a career awareness on the part of elementary grade students so they will develop a more favorable attitude toward all vocations.

To date, 20 separate educational units have been developed in such areas as carpentry, transportation, construction, law enforcement, dairy farming, and food service. An additional 40 units are in the development stage. These materials were tested in eight separate elementary schools in three districts (Provo, Davis and Ogden) 2 years ago, and they are now being distributed to elementary schools in 28 of the 40 school districts. Classes are actually being taught, using the course material developed by the "world of work" task force in 132 elementary schools. This does not mean that they are in all classes at all grade levels in these schools, but that some teachers in these schools are using the educational units prepared by the "world of work" staff.

This program stresses that there is dignity in all work and that all honest work is honorable. The advisory council feels that this is a tremendous program and that it should be expanded as quickly as feasible into all of the 385 elementary schools in Utah.

VIRGINIA

In the quest for a meaningful education, nothing is more important for every youth than to be provided with the kind of experiences which will enhance his capability to make rational career decisions, and with the opportunity to prepare for a selected career and to make progress in it.

Central to the belief that career decisions must be made through intelligent choice rather than haphazard chance is the proposition that public education, from kindergarten through college, must take steps to design and implement programs that will enhance intelligent career selections.

It is the belief of the Virginia State advisory council on vocational education that career education, constituting a central theme in the total spectrum of public education, should be assigned high priority throughout the State and Nation. It should become a major objective of public education; with its achievement measured by employability in occupations, both gainful and useful, that are a reasonable match of both the talents and the motivations of every citizen.

The Virginia State advisory council on vocational education pledges strong support for career education as an emerging, essential concept that will provide a meaningful system of learning experiences which will assist all youth to acquire useful information about the total work force, the intelligent determinations of personal capabilities and aspirations, the requisites for all occupations, and the opportunities to prepare for gainful and useful employment.

It is this latter component of career education—that of opportunity to prepare for employment—which can be well served by strong programs of vocational and technical education. To deny this climaxing opportunity—whether such preparation be performed at the secondary level, post-secondary level, in adult classes, or in business and industrial enterprises—is to nullify the purpose of career education and make futile a realistic goal of education.

In this context, the council believes, further, that the following characteristics are inherent and essential elements of career education:

1. Career education is not synonymous with vocational education, but vocational education is a major component of career education.

2. Career education is an integral part of the overall structure of the public schools; it involves an expressed need for utilizing the common and unique contributions of all educators, and the resources of home, school and community.

3. Career education is a comprehensive educational program focussed on careers, which begins in the kindergarten and continues through the adult years. In elementary school, students are informed about the wide range of jobs in our society and the roles and re-

quirements involved. In junior high school, students may explore specific clusters of occupations through hands-on experiences and field observations, as well as through classroom instruction. In senior high school, students prepare for job entry or further education. In adult life, citizens have opportunity for continuing occupational growth and achievement. Placement in a job or in further education are options open to all students.

4. Career education not only provides job information and skill development, but also helps students develop wholesome attitudes about the personal, psychological, social, and economic significance of work. It helps the student to develop an appropriate work ethic or life ethic.

5. Career education provides knowledge and experiences that enhance job adaptability in a time of rapid change due to technological advances and fluctuating economic trends.

The Council further believes that in order for this concept to be realized, education planners must work to achieve the following:

1. The expansion and strengthening of vocational education as a significant and identifiable component of career education.

2. The development of a curriculum, beginning at the kindergarten level, that provides to the student an increasing value and appreciation of the dignity of work, the knowledge of the world of work, and the need for and satisfaction of acquiring a salable skill.

3. Necessary changes in teacher education which will provide competent career educators.

4. Additional funding for all components of career education.

5. The redirection of present general education funds into the implementation of career education programs.

6. The establishment of effective coordination so that articulation is provided among all levels of education.

7. The acceptance of the characteristics of career education, as stated by the public and professional educators as desirable life goals for all persons.

Career awareness and career development program K-12 is being developed at Petersburg, Va., running from January 3, 1972, to June 30, 1973, funded in the amount of $121,000, under part C of Public Law 9-576.

Also, a career awareness program K-7 is being developed at the W. Kuhn Barnett Elementary School in Radford, Va.—funded under part C of Public Law 90-576.

WASHINGTON

Orientation and Exploratory Programs

The common school districts of the State of Washington have in the past few years implemented a major expansion in career awareness and orientation programs. While precise estimates relating to the actual number of districts operating some kind of systematic career awareness program are not possible, it has been estimated by the coordinating council for occupational education that most of the large and a considerable number of the smaller districts in the State have implemented such programs. It should be noted that several secondary schools in Washington State are piloting job observation and work experience programs involving substantial numbers of students in either a miniterm or continuous employment format. The U.S. Office of Education has, in the past year, given encouragement for expanding these orientation and exploratory activities.

Critical to a successful orientation and exploratory program is an expanded use of community resources and strong administrative support. Familiarity with the full range of jobs available in the years ahead will obviously require a much greater degree of interaction between schools and communities. Not only will community resources, including parents, business, industry, and labor be used within the context of the school, but students will observe firsthand the various job possibilities in their respective communities. This closer interaction between school and community, along with strong administrative support for teachers therefore, are top priorities for any local school district attempting to expand its career awreness programs.

The coordinating council for occupational education in Washington State currently supports a number of programs designed to encourage local districts in their efforts to expand career awareness programs for students. Project WAVE (what about vocational education?), vital information for education in work (VIEW), and the resource book entitled "Career Awareness in Elementary Schools" are examples of major efforts being made in this area.

WYOMING

The Riverton School exemplary project developed a curriculum model for the elementary attitude phase of the Wyoming comprehensive occupational education program design. A 2-day workshop was conducted to introduce guidelines for K–6 attitude development. Local staff and staff members from other districts were in attendance. Also, Riverton sponsored a 3-day workshop introducing guidelines for the junior high career orientation phase.

Because the Riverton project was the State's demonstration model, many schools visited the project, gaining information and ideas which they utilized in implementing elementary occupational awareness and orientation programs. A total of 15 of the 44 districts have implemented occupational and awareness and orientation at the elementary and junior high school level. Of these programs, six received Federal funding through part D exemplary.

Three hundred teacher resource guides, K–6 career awareness and attitude development and 7–8–9 career orientation and exploration, were made available to all local districts.

PUERTO RICO

One of the main concerns of the advisory council during the year has been the development of career education programs. The topic has been discussed in several meetings, books and publications have been read by the council's members and staff, and the various definitions—whether career education is equivalent to vocational education, or combines both the vocational and academic—have been reviewed. Several questions have been in the minds of the members of the council. Several models on career education have been studied.

The director of vocational and technical education in Puerto Rico and her staff have also been concerned with the topic. They have said that

> * * * the vital problem today in Puerto Rico is the harmonizing of personal achievement with the needs of a society many times larger and more intricate than that of early days. A major goal of public education in Puerto Rico is to develop economic as well as occupational competency in the students.

To deal with these concerns, the guidance program and the research unit of the vocational and technical education program have been developing for the last years seven projects on career education. They aim to lead the youngsters to explore the world of work and discover productive means of earning their living according to their needs and interests.

TRUST TERRITORY

An implementation model for career education should be pursued by personnel from the division of adult, vocational, and higher education and the division of elementary and secondary education. The career education model should reflect the educational, political, social, and economic developmental needs of the Trust Territory. Every governmental department and agency should be involved in developing such a model.

TO WHAT EXTENT WERE THE GOALS AND OBJECTIVES OF THE STATE PLAN MET DURING THE YEAR?

ALABAMA

The lack of explicit objectives in the 1972 State plan made it impossible to assess the extent to which the State goals were met.

KANSAS

Extent to Which Goals Were Met

To assess the extent to which the division of vocational education was able to implement the goals and objectives as set forth in the State plan, comparisons were made between the planned expansions and new programs and the actual number of expansions and new programs implemented in 1971–72.

These data show that 27 percent of the planned expansions and 51 percent of the planned new programs were implemented during 1972. The large number of new programs started in trade and industrial education resulted partially from the inclusion of IACP programs in the trade and industry education section.

Two major factors operated to limit the implementation of the State's goals. These were: (1) A slight drop in secondary enrollment and (2) the limitations of funds and staff time.

Between 1970–71 and 1971–72, the secondary enrollment in grades 10 through 12 dropped slightly in Kansas. This eliminated the need for some of the planned expansions and new programs especially in agriculture and home economics which have a majority of their students at the secondary level.

MASSACHUSETTS

In 1970, actual enrollments exceeded State plan goals by some 15 percent. While the number of pupils served during 1971 and 1972 did increase, State goals were apparently not met. In the postsecondary occupational areas the offerings are generally adequate to very good but too few persons are being handled with enrollments 33 percent under the State's 1972 goal. The adult programs display a similar problem with enrollment totals being missed by 17 percent. Actual enrollments of the handicapped and disadvantaged met the State goal of 10 percent of all those identified in this category.

Quantitatively, the State plan goals for 1972 were some 12 percent short of attainment. This was an improvement over 1971 by some 24 percentage points.

MISSOURI

The council found that the objectives delineated within the State plan appear to have been met as far as enrollments were concerned, except in the area of adult education.

MONTANA

The council's indepth analysis of the extent to which the specifically stated goals in the 1972 State plan were met indicate an encouraging and satisfying situation in most areas.

NEBRASKA

Overall vocational program growth has been achieved at both the secondary and postsecondary levels. The percentage of secondary students enrolled exceeded the goal for the year, but the number of secondary students going on to postsecondary and adult vocational programs was not attained.

NEW JERSEY

Original objectives were not established realistically. The levels of achievement in meeting planned objectives vary so widely, and extend over such a wide range (from a high of over 1,000 percent for postsecondary completions in trades and industry, to a low of 4 percent for adult completions in distributive education), that analysis of the results would be meaningless. Obviously there were serious flaws in the data upon which the objectives were based. A new PPB system will be in effect for the State plan for fiscal year 1974, which should correct these deficiencies.

NORTH CAROLINA

An examination of the objectives as set forth in the State plan and data collected by the State board agencies indicate that a great many of the objectives were fully met, and that most of the others were substantially met. Because the council had difficulty in precisely determining to what extent some of the objectives were met, the council believes the State board agencies should make a detailed analysis each year of the extent to which the previous year's goals and objectives (as outlined in the State plan) were met, and that this analysis should be published and distributed not later than August 31.

NORTH DAKOTA

Every goal in the State plan has been met or exceeded. While the vocational education program in North Dakota, and its goals are considerably short of ideal (e.g., 21.7 percent of the secondary school students are being served by vocational education), they are realistic in terms of what is possible. Great progress continues.

SOUTH CAROLINA

Essentially the programs operated under the State board of education are established by the local school districts. When viewed on a statewide basis, there do not appear to be any areas of overexpansion in the vocational education programs as administered under the State board's 5-year plan, which encompasses the 1970–75 period. Agreement is expressed regarding the goals which call for expansion of the various types of vocational education, e.g., prevocational, trade and industrial, distributive education, and so forth. None of these programs marked for increase has yet reached the level called for in the 5-year plan.

Conclusions could not be drawn regarding the degree to which the objectives were reached for postsecondary vocational education (technical education), because the objectives for postsecondary as given in the 1972 State plan were simply an aggregate total with no specificity regarding program types or types of students. Data were available later regarding the number of graduates for degree programs by type of technical education program, but this could not be cross-referenced with the plans at the beginning of 1972.

TENNESSEE

The council questioned the validity of the data that were used in some cases of goal determination. However, they accept the fact that the data were the best available under the present system of data collection.

The data do not adequately reflect the total absence of vocational education opportunities in some areas of the State.

TEXAS

Most goals set forth by the fiscal year 1972 State plan were exceeded, many in a substantial manner.

WEST VIRGINIA

While the council found that most of the enrollment objectives contained in the State plan were either achieved or exceeded, except as noted below, the council's concern is not so much with the figures as with the underlying bases for those objectives, population needs and manpower demands. For example, with reference to the disadvantaged and handicapped persons in vocational education, different figures are used in different parts of the State plan.

With respect to funding objectives and actual expenditures for Federal and State funds, each line item shows a difference from a low of minus $20.622, to a high of plus over $1 million.

Enrollment objectives were not achieved as follows:

Secondary Level School Programs

Regular students in health and technical programs.
Disadvantaged students in occupational home economics.
Handicapped students in trade and industry.

Postsecondary Level School Programs

Agriculture and distributive education.

Adult Level School Programs

Agriculture, business, technical, and trade and industry.

Comparing objectives and achievements in terms of students completing their programs, it was found that objectives were not achieved at the secondary level in agriculture, health, and technical programs, at the postsecondary level in agriculture, distributive education, business, and technical programs.

WYOMING

The majority of State plan objectives which specified the securing of a given number of enrollees in programs were apparently met. In previous years, the advisory council's report superseded the division of occupational education's annual report; therefore, accurate numerical accounts were not available. In addition, local education agencies were at the time providing their annual reports to the division of occupational education; therefore, the division of occupational education could not provide year-end figures for programs.

With this in view, the advisory council cooperated with the State department of education and the division of occupational education contracting the Palo Alto Educational Systems, Inc., who planned and implemented a system of collecting individual information on all students enrolled in occupational education classes.

The fiscal year 1972 State plan estimated secondary enrollments to be 17,000, while the actual enrollment reported through the VERIFY system was 14,834. The council does not interpret this as a decrease in enrollment. Only, it would more substantiate the fact that in previous years base-line enrollment figures were erroneous.

The postsecondary enrollment gain from the estimated 776 enrollment to the actual 1,514 would be accurate. These figures were verified through consultation with community college deans of occupational education and the community college commission.

To What Extent Are State Plan Goals and Objectives Being Stated in Measurable and Accountable Terms?

ALABAMA

The State plan should be more than a compliance document. It should describe State program goals, objectives and activities so that local educational agencies will know the State board's intentions, and be able to plan in advance to achieve those intentions.

There was an absence of explicitly stated goals and activities in the 1972 plan. The council is working closely with the board to correct this situation in the 1973 State plan.

ARKANSAS

Due to restrictive guidelines published by the United States Office of Education, the State plan is essentially a compliance rather than a planning document. Furthermore, the actual preparation of the plan so far precedes Federal funding of vocational programs that accurate planning is impossible. These two deficiencies make evaluation of the plan on its own merits virtually impossible. Therefore, it was necessary for this council to go to many different sources to find the data to answer questions which should have been easily contained from the plan itself.

While goals are stated in quantitative terms in the State plan, they are misleading in terms of needs assessment. For example, while 15 vocational area planning regions for the State. Each region is mandated to produce a master plan coordinating the resources, manpower needs, and vocational programs in designated geographic areas. Presently there are twelve designated planning areas, with five functioning. The State board of education and the board of governors of the community colleges are providing leadership, funds, and staff to the area planning committees. However, the council finds that the committees are dissatisfied with the lack of support and value attached to their efforts as evidenced by the fact their plans were not incorporated into the 1972-73 State plan.

COLORADO

Stated goals and specific objectives, in quantative terms, were listed in the State plan. Procedures or activities to accomplish the stated goals were not listed in the 1972 plan, but are included in the 1973 plan. The objectives of the 1972 State plan were comprehensive in terms of target groups, by level of training, and by disadvantaged and handicapped. However, returning veterans were not stated as a specific target group, but were included in other identified categories.

CONNECTICUT

Historically, Connecticut had provided for the vocational needs of its citizens through a system of State technical schools and technical colleges which dealt with approximately 5 percent of the secondary school-age-range population and with an even smaller percentage of the postsecondary-age-range population. Applications for the programs offered by these schools always exceeded vacancies (and still do), and the program offerings were in the traditional trades and industry and agriculture areas. With the passage of the Vocational Act of 1963, and with its amendments of 1968, the department of education was faced with the management problem of delivering occupational and vocational programs through a multiplicity of local school districts, private agencies, proprietory institutions, other State agencies, etcetera. Major problems of coordination exist since funding under other Federal legislation for programs aimed at the same population groups as those of Public Law 90-576 are being administered by other divisions within the department of education and by other agencies of the State. So far as the division of vocational education is concerned, it is our observation that the present staffing patterns are inadequate to implement the intent of Congress through the use of Federal funds. Simple systems to provide management information are lacking. As an example, as of mid-September, no summary data was readily available to show which programs in which school districts under which category of funding were continued funding from a prior year or when new programs were funded during the school year ending June 30, 1972.

No summary list by school district showing what programs and what enrollments and for what purpose the programs were designed in terms of outcome was available. As late as the end of October 1972, reliable enrollment data on programs for the disadvantaged were not available. Some data was available relating to programs for the handicapped. We took the top 10 towns designated in the State plan as being in greatest need of support and found that of 31 programs operated in local school districts, only 15 were in these top 10 priority districts, and that within the top 10, these 15 programs were concentrated in five districts; that, of 11 programs operated through private institutions, such as, Goodwill Industries, Hartford Association for Retarded Children, only six were operated in three of the priority towns. Of the other 10 programs which were operated in State-supported institutions, four were located in only one of the priority towns. In short, of the 10 top-priority towns, four towns, with a combined population of approximately 250,000 had no programs operating for the handicapped. This indicates that the priorities stated in the State plan must be more vigorously and effectively pursued. Given these data, it seems clear that the department of education lacks the long- and short-range planning, management, and information systems necessary to assure appropriate delivery of needed services to a major segment of Connecticut citizens.

DELAWARE

In its 1971 Evaluation Report, the Council recommended:

That local school districts develop short, middle, and long range plans for vocational and career education which include introductory and exploratory programs at the elementary level of education, cooperative and work-study programs at the secondary level, and employment placement services at the secondary and postsecondary level; that they also develop and implement plans to afford maximum use of facilities, equipment, and personnel to the communities they serve.

By the end of February 1972, the State director of vocational education reported that every school district in the State, for the first time, had submitted acceptable plans for vocational education which incorporated the elements of the above recommendation.

In the narrative section of the 1971 evaluation report, the council stated:

> The Delaware State Plan for Vocational Education barely qualifies under minimum requirements. The State Plan in Delaware is, in fact, not a plan, but a report and an ambiguous, inaccurate and useless document, at best.
>
> The State Plan for Vocational Education should be a composite synthesis and analysis of local plans for vocational education which incorporates present thought on the status, development and direction of all activities in the State directed toward the development of individual capabilities as related to employment opportunities.
>
> There is little evidence, and less assurance, that the State Plan for Vocational Education in Delaware involves significant in-put and, therefore, acceptance and support, from more than a handful of individuals.
>
> The State Plan for Vocational Education must become a more responsive and viable document, inherent to, compatible with, and responsive in, an attempt to develop a comprehensive program for Career Education in Delaware that ultimately provides a direction towards a qualitative measurement of education in our State.

With in-put provided from the local plans for vocational education, the priorities established by the State board of education and the "Goals for Delaware" contained in the "Future of the State" message, delivered by the Governor and accepted by the General Assembly, the department of public instruction staff reorganized the Delaware State plan for vocational education during 1972.

Representatives from all components of the community were involved. In addition to close consultation with the advisory council members and staff, the State planning department, the department of Labor, the State department of administrative services and private consultants specializing in manpower projections were involved. There were numerous other organizations and individuals who participated in the development of the State plan. The general public had three opportunities to react to the document.

The result is a State plan for vocational education in Delaware that is based on statewide goals and objectives, is understandable, both to those it will affect and those who will effect it, and is practical, in terms of implementation in consideration of funding realities.

DISTRICT OF COLUMBIA

The goals of the 1972 State plan were implied rather than explicitly stated. This deficiency has been corrected in the State plan for 1973.

FLORIDA

In addition to a technical review of the required provisions of the Florida plan, special emphasis was placed on the goals of the Florida State advisory council on vocational and technical education which suggests that evaluation should focus on the State's goals and priorities as set forth in the plan. In this regard, consideration was given not only to the technical requirements of the plan but also to the clarity of language and presentation within the limits allowed by Federal regulations.

It was found that the State plan dutifully acknowledges the criteria established by the Federal Government. Much attention is devoted to topics concerning the disadvantaged, handicapped, unemployed, vocational needs, and new and emerging vocations. Nevertheless, it is impossible or, at best, very difficult to determine from the State plan how the competing needs are to be weighted and priorities established, how evaluations are to be conducted and supporting data gathered, and, finally, how these priorities are to be integrated with the other required information and evaluations into a statewide program of vocational and technical education.

ILLINOIS

In the fiscal year 1972 State plan the vocational education objectives are quantified into tables. Priority needs are spelled out for research, exemplary programs, target populations and target areas, but none are delineated in terms of goals, objectives to achieve these goals, outcomes expected, activities to achieve these outcomes, the necessary budget to accomplish, nor the benefits derived from such activity.

The council believes that more definitive goals and objectives could be established and that the development of such goals and objectives should receive extensive in-put in the planning process and utilize local planning data for the State plan.

A planning cycle—from local plans to the State plan does not exist. Some 650 local plans are submitted to the State office but they appear to be used only for program approval purposes. There also appears to be a lack of accountability by local educational agencies for State and Federal funds—the questions of, "should the program be offered in the first place?", and, "is the product employable and placed?", are basically omitted.

MASSACHUSETTS

The council finds that the nature of planning in compliance with exhaustive guidelines published by the U.S. Office of Education is essentially inhibited by the nature of the compliance document. While all the pieces are there, it is extremely difficult to match each piece with others. The council believes that the State Board of Education should adopt a planning methodology, irrespective of the compliance reporting for the U.S. Office of Education, which will state each goal with priorities and explain how each goal will be reached.

MISSOURI

While there has been considerable improvement in the explicit statement of goals and objectives in the State plan, the council finds that the use of percentages without numbers leaves much to be desired. The council also recommends that the plan indicate the priority to be given each set of goals and objectives.

MONTANA

The broad goals found in the fiscal year 1972 State plan are generally those required by the Vocational Amendments of 1968, and hence necessary in order to receive Federal funds in this category. Although these are worthy goals and their inclusion is understandable, the plan does not appear to contain additional goals based on the unique problems and needs of Montana students.

OHIO

The careful long-range planning of the Ohio division of vocational education as indicated by the specific goals reported and approved by the council is reproduced as follows.

PROGRESS REPORT ON OBJECTIVES AS ADOPTED FOR FISCAL YEAR 1972 PROJECTED TO FISCAL YEAR 1976

Objectives	Fiscal year			
	1971	1972	1973	1976 Projected
1. To provide by 1976 a work orientation program for 940,892 or 83.4 percent of the 1,128,168 students, at the K–6 grade level, which will encourage constructive work attitudes in all youth. Enrollment	11, 316	15, 223	63, 513	940, 892
2. To provide by 1976 a career orientation program for 283,957 or 83.8 percent of the 338,851 students, at the 7th and 8th grade level or 12 and 13 years of age to build a basis for a career exploration program realistic in light of all the circumstances surrounding them and the actual and potential labor market demands for gainful employment. Enrollment	10, 857	13, 992	29, 236	283, 957
3. To provide by 1976 a career exploration program for 318,756 or 83.4 percent of the 382,202 students, at the 9th and 10th grade level, or 14 and 15 years of age. Enrollment	4, 790	10, 432	25, 725	318, 756
4. To provide by 1976 a youth occupational work adjustment program for 76,440 or 100 percent of the 76,440 dropout prone students, which equals 20 percent of the youth in the 9th and 10th grade level, or below the age of 16 years. Enrollment	2, 966	3, 895	5, 540	76, 440
5. To provide by 1976 a preparatory job training vocational education program for 175,244 or 40 percent of the 438,112 students at the 11th and 12th grade level or 16 years of age and above, and other qualified groups, including: (a) Disadvantaged, (b) Handicapped. Total enrollment	83, 862	91, 293	115, 472	175, 244
6. To provide by 1976 a post-secondary program for 33,032 or 3.7 percent of the 892,763 persons 18 to 22 years of age. Enrollment	13, 911	19, 746	22, 000	33, 032
7. To provide by 1976 retaining and upgrading vocational education program for 555,760 or 10 percent of the 5,557,600 adult workers; emphasis will be placed upon occupations in the construction industry. Enrollment	121, 340	131, 078	153, 231	555, 760
8. To provide by 1976 4 residential vocational schools for 2,000 youth 16 to 21 years of age who can profit from this type of an instructional program. Enrollment	[1]	[1]	[1]	2, 000
9. To provide by 1976 a vocational home economics consumer and homemaking education program, for 225,968 or 63.6 percent of 355,295 girls at the 9th through 12th grade level and 43,098 or 62.4 percent of the 69,068 adult women in a 1-year span which will prepare them for the role of homemakers in their dual role of homemaker and wage earner. Enrollment	76, 622	86, 730	92, 707	269, 066
10. To provide by 1976 a vocational home economics consumer and homemaking education and family life program for 12,369 or 55 percent of the 22,489 dropout prone girls at the 7th and 8th grade level which equals 19.1 percent of the girls at the 7th and 8th grade level and 117,358 or approximately 75.7 percent of the 155,030 adult women in a 3-year-age span living in the culturally and socially depressed areas. Enrollment	60, 303	51, 459	66, 215	129, 907
11. To provide by 1976 a vocational work study program for 52,573 or 30 percent of the 175,244 vocational students basically in the 11th and 12th grade vocational program, who are 15 through 21 years of age and who are in need of earnings from employment to pursue a vocational education program. Enrollment	901	944	1, 700	52, 573

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[1] No Federal funds have been appropriated for this objective in Public Law 90–576.

1973 OBJECTIVES FOR VOCATIONAL EDUCATION IN OHIO APPROVED BY THE OHIO DEPARTMENT OF EDUCATION AS RECOMMENDED BY THE OHIO DIVISION OF VOCATIONAL EDUCATION [1]

Objective No. 1

To provide by 1980 a career motivation program for all youth at the elementary school level, which will encourage constructive work attitudes adjusted to 1977 to provide for 784,773, or 66.0% of the 1,188,904 students at the K–6 level.

Objective No. 2

To provide by 1980 a career orientation program for all youth twelve and thirteen years of age to build a basis for a career exploration program realistic in light of all the circumstances surrounding them and the actual and potential labor market demands for gainful employment adjusted to 1977 to provide for 225,520, or 61.5% of the 366,785 students at the seventh and eighth grade levels or twelve and thirteen years of age.

Objective No. 3

To provide by 1980 a career exploration program for all youth fourteen and fifteen years of age adjusted to 1977 to provide for 239,246, or 60.2% of the 397,104 students at the ninth and tenth grade level or fourteen and fifteen years of age.

Objective No. 4

To provide by 1980 an occupational work adjustment program for all dropout-prone youth below the age of sixteen years, adjusted to 1977 to provide for 27,675, or 36.5% of the 75,847 dropout-prone students, which equals 19.1% of the youth in the ninth and tenth grade levels or below the age of sixteen years.

Objective No. 5

To provide by 1974 a preparatory job training vocational education program for 40% of all the high school youth sixteen years of age and above, and other qualified groups, adjusted to 1977 to provide for 185,472, or 44.4% of the 417,940 students at the eleventh and twelfth grade levels or sixteen years of age and above, and other qualified groups.

This includes 75% of the disadvantaged school youth who have academic, socio-economic or other handicaps that prevent them from succeeding in a regular vocational education program adjusted to 1977 to provide for 47,018, or 75% of the 62,691 disadvantaged school youth which equals 15% of all youth at the eleventh and twelfth grade levels or sixteen years of age and above, and 50% of the handicapped high school youth, who because of their handicap, cannot succeed in a regular vocational education program adjusted to 1977 to provide for 20,897, or 50% of the 41,794 handicapped school youth which equals 10% of all youth at the eleventh and twelfth grade levels or sixteen years of age and above.

Objective No. 6

To provide by 1982 a post-secondary vocational program for 5% of persons eighteen through twenty-one years of age, adjusted to 1977 to provide for 32,800, or 3.7% of the 887,986 persons eighteen through twenty-one years of age.

Objective No. 7

To provide by 1982 retraining and upgrading vocational education programs for 7% of all adult workers, adjusted to 1977 to provide for 230,473, or 4.7% of the 4,950,800 adult workers.

Objective No. 8

To provide by 1977 four residential vocational schools for 2,000 youth sixteen to twenty-one years of age who can profit from this type of an instructional program.

Objective No. 9–a

To provide by 1985 a two-year vocational home economics consumer and homemaking education program for all high school girls, which will prepare them for the role of homemaker in the dual role of homemaker and wage

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[1] These objectives were approved by the Ohio Advisory Council for Vocational Education.

earner, adjusted to 1977 to provide for 116,477, or 62.7% of 371,500 girls at the ninth though twelfth grade levels.

Objective No. 9–b

To provide by 1985 a vocational home economics consumer and homemaking education program for women which will prepare them for the role of homemaker in the dual role of homemaker and wage earner, adjusted to 1977 to provide for 17,864, or 25.7% of 69,492 women in a one-year age span.

Objective No. 10–a

To provide by 1985 a one-year vocational home economics consumer and homemaking education and family life program for students at the seventh and eighth grade levels living in culturally depressed areas, adjusted to 1977 to provide for 4,849 or 22.3% of the 21,750 dropout-prone girls at the seventh and eighth grade levels which equals 20.1% of the girls at the seventh and eighth grade levels living in culturally depressed areas.

Objective No. 10–b

To provide by 1985 a vocational home economics consumer and homemaking education and family life program for women living in culturally depressed areas, adjusted to 1977 to provide for 79,546, or 59.7% of the 133,352 women in a three-year age span living in culturally depressed areas.

Objective No. 11

To provide by 1980 a vocational work study program for 5% of the students enrolled in a job training program, who are fifteen through twenty-one years of age, and who are in need of the earnings from employment to pursue a vocational education program, adjusted to 1977 to provide for 3,710, or 2% of the 185,472 vocational students basically in the eleventh and twelfth grade vocational programs, who are fifteen, but less than twenty-one years of age, and who are in need of earnings from employment to pursue a vocational education program.

SOUTH CAROLINA

The goals and priorities for both vocational and technical education appear to be valid, although it should be noted that goals are predicted primarily on job opportunities. This gives a tendency toward consideration, because programs could and should be provided for a much larger proportion of students than is now the case, if finances were available. With the conditions of employment that exist in 1972, not only should most, if not all, of the noncollege bound students avail themselves of some form of skill training through vocational and/or technical education, but there is also the matter of the college-bound students. Of those who plan to go to college, a considerable number could also profit from work experience or some other type of vocational program. This kind of educational experience would help to make education more relevant, assist the students in relating their secondary and college studies to the actual world of work, and in many instances provide them with a means for obtaining more satisfactory part-time employment as they pursue their baccalaureate degrees. Hopefully it may become possible soon to reassess the goal of 60 percent of secondary students in vocational education as the State's programs gradually approach this figure.

With the exception of those students who are classified as disadvantaged or handicapped, the data in the State plan are insufficient to provide any type of assessment of the goals relative to specific target population groups.

Data on goals and priorities for postsecondary vocational education (technical and adult vocational), were virtually nonexistent in the State plan. Since these programs are administered primarily by the State board for technical and comprehensive education, this information was requested retrospectively from that board's staff. According to the information provided, the 'modus operandi' during fiscal year 1972 appeared to be to justify proposed programs according to specific criteria rather than to preplan programs for critical occupational areas. It is noted that during the summer of 1972, the TEC operation was rapidly changing orientation to become goal-oriented. The indications are that the TEC operation was, to the extent of available resources, perhaps as effective as it could have been during fiscal year 1972. It is also noted that the TEC center operations, similar to those of the local districts, are essentially autonomous in nature and were able to plan and conduct programs in response to perceived need within their immediate geographical area.

In recognition of the fact that the State plan for vocational education format for fiscal year 1972, was essentially a compliance document, attention is called to the leadership provided by the State board of education's staff in establishing the 1975 objectives for South Carolina public schools, with particular reference to the objectives to provide adequate occupational training opportunities for students enrolled in the South Carolina public schools. These objectives provided the basic planning framework around which the objectives for the State plan were developed. While the State plan did not list specific procedures for reaching these objectives, it is noted that specific activities are given in the 5-year objectives which would lead toward accomplishment of the objectives for 1972 in that planning document. It is believed that efforts are being made to concentrate on the areas and population groups given as target areas and population groups in the State plan.

SOUTH DAKOTA

Quantitative analysis shows that in the main, the objectives of the 1972 State plan reflects consideration of relevant statistical data, that "management-by-objective" concepts are being utilized, and that the objectives were met with acceptable accuracy, at the postsecondary level, as actual enrollments exceeded estimated enrollments by some 20 percent.

TEXAS

The State's goals and priorities are not clearly set forth in the State plan. Five-year projections are based primarily upon previous years' experiences and trends, in keeping with U.S. Office of Education Guidelines.

In the 1971 and 1972 council reports and recommendations, encouragement has been given for the U.S. Commissioner of Education and the State Board of Education to more clearly identify the unmet needs and what resources would be required to meet these needs.

TO WHAT EXTENT ARE LOCAL SCHOOL SYSTEM AND PROGRAM ADVISORY COMMUNITIES BEING UTILIZED EFFECTIVELY THROUGHOUT THE STATE?

ALABAMA

A survey of 1,206 vocational teachers at all levels revealed they averaged less than 3 hours in local program advisory council activities.

Very few local boards of education have general program advisory councils. Little, if any, in-depth operational or directional guidance is being provided by the vocational division of State teacher education institutions to local advisory committees. The council recommends that the board develop guidelines for, provide consultative services to, and require local educational agencies, to appoint local advisory councils and program advisory committees.

ARIZONA

A few schools are reported to be only meeting the requirements that advisory committees be organized, but these committees are not functional. More effective use of these committees must be tactfully encouraged, even though some boards of education are fearful that the advisory committees may gain some control of the schools.

Adult education is one of the common threads that weave in and out of all of vocational education and is inseparable from secondary schools, the community colleges and the universities. One of the quality programs that exist in adult education is the adult vocation supplementary educational program for mid- and top-level management people in business and industry which is administered by Arizona State University at the center for executive development. This program functions with the continuing support of the business and industry community and is enthusiastically supported by the dean of the College of Business Administration. A similar program is available at the University of Arizona in the Division of Continuing Education, which is also an excellent program.

Another excellent vocational program operates in conjunction with the Arizona Apprenticeship Council in Tucson. This apprenticeship program for construction trades has outstanding instruction from five journeymen who train apprentices in carpentry, masonry, painting, decorating, plumbing, sheet metal, and heavy equipment operation. All the students involved in this program are indentured apprentices.

FLORIDA

Florida State Board of Education Regulations 6A–6.88 and Community Colleges Regulation 6A–8.571 provide that general advisory committees for occupational education may be appointed ". . . to advise the Board on the development, operation, and evaluation of the occupational programs offered." The council recommends that each district school board and community/junior college board of trustees have an organized and active general advisory committee and appropriate program advisory committees for vocational and technical education.

GEORGIA

One of the recurring themes coming out of the 16 regional hearings was the need for more effective lines of communication between employers and school people. One of the most effective strategies for achieving this objective is the use of local advisory committees. It is felt that while such committees are in existence throughout the State, employers are generally unaware of them because the committees probably exist in name only. The State plan for 1973 will require all local school systems to establish advisory committees.

KENTUCKY

Local business and industry leaders must have more input into the planning and evaluation of vocational programs at the local and regional levels. Local and regional vocational education administrators must lean heavily on the business and industry communities for guidance in the development and modification of instructional programs.

MARYLAND

The Division of Vocational Education reports that 60 percent of Maryland's school districts now have local advisory councils, most with viable programs. The extent to which local communities participate in planning and implementing vocational technical education programs remains unclear. A State department of education project to demonstrate ways and means leading to the involvement of communities in public education is unreported. Another project, to prepare an operational handbook to guide agencies in achieving advisory committee goals, is also apparently delayed.

MISSISSIPPI

The guidelines for local plans for vocational education require certification from the local school that an advisory committee is used in program planning and purchasing equipment. Local agencies are urged through conferences, supervisory visits, and all other available means to utilize craft committees and advisory committees. Further implementation of this recommendation therefore becomes a matter of educating local agencies as to the value of using advisory committees. The council recommends an all-out effort to improve the status and function of local advisory committees so that they may be a viable force in program planning and implementation.

MISSOURI

The council recommends that advisory committees be appointed in each district offering vocational subjects and receiving Federal and State moneys. All annual local district planning instruments submitted to the State should include a section attesting knowledge, by signature, of the chairman of the local system general committee. Any remarks about agreement or disagreement with the plan may be added at the discretion of the local advisory committee.

The council also strongly urges that individual course or craft committees also be formed, and that they have representation on the general committee.

MONTANA

The sample survey indicated that generally the local advisory committee is organized and does provide to the local school valuable advice which is used in program development. An example of increased emphasis in this area is the 60 percent increase this year in secondary home economics advisory committees. Some teachers have indicated that the committee is the real catalyst for the success of the program. However, a few (14) teachers who were interviewed expressed a concern that there was inadequate provision for community and industry input into the goals of the program. Secondary school advisory committees seem to be less effective than those at the postsecondary level.

Several of the schools contacted by the council have indicated they are working closely with employers, through advisory committees, to gain a perspective on local manpower needs, and are developing curricula with this information in mnid.

NEBRASKA

The council recently completed a statewide evaluation of local vocational advisory committee activity. Input from business, industry, and the local community is a vital factor in adapting vocational programs to individual and community needs. The local advisory committee is an important aid in achieving communication between school and community and is a worthy, time-proven practice in vocational education.

As a result of findings from the study, the council recommends a more extensive use of local vocational advisory committees be mandated in Nebraska. It is especially concerned that 42 percent of the schools have no local advisory committee activity and another 30 percent are informally organized. There should be evidence of greater participation of the advisory committee in preparation of the local plans for vocational education.

Management of a local advisory committee is a key to its efficiency and effectiveness. Assistance in setting up a local vocational advisory committee may be received from the consultants of the division of vocational education. In addition, all vocational teacher education agencies should include the management of local vocational advisory committees as part of their inservice and preservice teacher preparation.

NEW MEXICO

The council recommends that the State board of education encourage additional participation on the part of community leaders, industry, labor, and affiliated groups in the design and implementation of career-based curriculum projects. The council also recommends:

(*a*) Increased diversified cooperative work experience programs;

(*b*) Contracting with businesses and industry for the purpose of utilizing facilities and personnel for career exploration and training.

NORTH CAROLINA

The lack of business, industry, and lay citizen involvement in program development and implementation was evident in a number of programs. It was further found that:

1. Some teachers were allowing very poor practices to be used by students.
2. Additional facilities and equipment are needed to support occupational education programs in many schools.
3. More cooperative education opportunities are needed in both secondary and postsecondary institutions.

The council recommended that:

1. Emphasis on safety practices in classrooms, shops, and laboratories (and information about State and Federal laws and regulations) should be given additional attention by State staffs and teacher education institutions.
2. Continued emphasis by the State board of education (and also by the colleges and universities in the State) must be placed on the professional development of persons administering occupational education programs.
3. The State board of education should continue to encourage and emphasize business, industry, and lay citizen involvement at all levels in program development, implementation, and evaluation.

NORTH DAKOTA

Industry is involved in the State's vocational education programs in several ways. First, many businesses are involved in cooperative education programs. Second, each local program has businessmen serving on local advisory committees. As near as can be determined, these local advisory committees are active and a valuable part of the local vocational programs.

OHIO

While the division of vocational education does require the establishment of local advisory committees before the approval of any new programs, the council had recommended in last year's report that the division insist that local administrators of vocational education make more extensive use of local advisory and craft committees. The council had also recommended assigning a full-time person to this responsibility in the division.

Again, in the current report the council recommended that the board continue emphasizing the use of local advisory committees. A research project funded by the council revealed:

1. Only one-half the schools studied used advisory committees;
2. Local citizens are willing and anxious to serve as members of advisory committees;

3. The extent to which advisory committees are used appears to be related positively to the breadth and depth of vocational offerings in the schools.

OKLAHOMA

Business and industry are involved in the redirection of 25 vocational and agricultural programs in 12 schools leading toward cooperative agribusiness. Industry involvement is concerned with determining the value of new methods and materials compared with old basic core curriculum.

The council recommended to the State board for vocational-technical education that provisions be made for strengthening local advisory committees for vocational programs by making them part of the formal application process for local reimbursement. The council also recommended that the State board require local districts to make effective use of local advisory committees during the school year 1972–73; and by 1973–74 such committees should be made mandatory as part of the legal contract between the board and the local districts. Two factors were responsible for this strong action:

(*a*) The council's conviction that local advisory committees can assist in making instruction more relevant to local and regional occupational demand needs, and contribute to better employment opportunities for graduates. Also if career education is to become a reality, State agencies must work more closely with concerned community and business leaders in local districts, as well as with local school administrators.

(*b*) A study conducted by the State department the previous year indicated that despite the specific provisions for use of local advisory committees in the State plan, nearly two-thirds of the vocational and technical teachers throughout the State do not have the assistance of advisory committees. Of those who do, nearly 9 out of 10 teachers find the committees beneficial.

While the State department agrees with the council as to the benefits of local advisory committees, it is still stressing voluntary, rather than the mandating compliance, recommended by the council.

PENNSYLVANIA

Considerable concern has been expressed that general advisory and local craft advisory committees in Pennsylvania are not being utilized as effectively as they might be. Early evidence of this situation was revealed in the comprehensive 1969 study of vocational education in Pennsylvania. Unfortunately, this is not uncommon among other States.

Effective results from advisory committees can be attained only if individuals serving on the committee know what their functions and responsibilities are, and are given every opportunity to contribute their expertise to the development and improvement of vocational education programs. It appears that a number of vocational administrators do not take full advantage of the expert assistance available from members of general advisory and craft committees. Every local administrator needs such assistance in the development of overall vocational education programs to meet defined labor market needs in a given geographical area. Craft committees should be continuously involved in curriculum review and program changes.

Requirements for the designation of general and craft advisory committees could be included in an appendix to the administrative policies (part I) section of the State plan for vocational education including the duties and responsibilities of all advisory committee members. Other requirements, such as minimum number of meetings during each school year and recorded minutes of each meeting should also be specified.

Perhaps, at least on a pilot basis, some regular or periodic communication could be put into effect between the State advisory council and some local advisory committees. Such regular communication back and forth could have the effect of stimulating and maintaining the interest and participation of the local committees.

SOUTH DAKOTA

The council, in cooperation with the South Dakota Industrial Development Expansion Agency, held six public hearings designed to elicit lay citizen viewpoints concerning vocational education in the State. The council also sent a 20-question questionnaire to 120 employers (65 percent responded) in order to secure information which will be beneficial to vocational education program planning. Some of the major findings were:

1. Strong support for career education.
2. The postsecondary schools are doing a good job of preparing students to meet the business and industrial employment needs.
3. Despite great strides, vocational education in South Dakota is still behind the times in terms of new and expanded training, courses, and programs.
4. Need for the vocational schools to establish and maintain close communication with employers.
5. Need for students to receive on-the-job training while still in school.

TENNESSEE

Local school district plans for vocational education which must be submitted to the State department are required to give strong emphasis to the development of local advisory committees. The council considers these efforts as significant, and worthy of continuation. The Council points out that such committees must be well organized, have carefully planned and conducted meetings, involve their membership, and meet at least once per month.

TEXAS

In December, 1971, 200 school districts in the State who have ancillary vocational personnel (vocational administrators, supervisors, and/or counselors) were sent questionnaires regarding local advisory councils or committees.

These 200 districts are the largest of the 935 districts in the State that offer vocational programs. They represent about 80 percent of all students in the State.

Responses were received from 193 of the 200 districts located in 116 of the State's 254 counties.

Districts were asked to respond with information as follows:

1. Number of members.
2. Who appoints members?
3. Length of term.
4. Number of meetings per year.
5. Whether or not minutes or records were kept of meetings.
6. Who serves as the council spokesman?
7. Were guidelines available?
8. Who established guidelines?
9. Evaluation of the effectiveness of the council/committees.

The above information was requested for what was identified as local councils, meaning that this body represented all programs in the school district. Program committees are formed for occupational areas such as agriculture, distribution, health, etcetera, and craft committees are formed for specialities within the programs, such as welding, cosmetology, etcetera.

The summary of the responses on the district or community councils is as follows:

1. Sixty-two percent of the councils had from 7 to 9 members with 20 percent having less and 18 percent more than 9 members.

2. Less than 2 percent of the councils were appointed by the board of education, 54 percent by the superintendent, 23 percent by the local director of vocational education, and the remaining 20 percent by various officials such as principals, supervisors and teachers.

3. Thirty-nine percent served 1-year terms; 40 percent 2-year terms; 3 percent 3-year terms; and 18 percent served longer or indefinite terms. All districts except one indicated the council members could be reappinted.

4. Frequency of meetings of council: 5 percent meet monthly; 14 percent meet each semester; the remaining 81 percent meet as called.

5. Minutes and records of the meetings were kept by 36 percent; 8 percent reported no, and the remaining 56 percent said that minutes and records were kept only as needed.

6. The chairman of the council was the official spokesman in 80 percent of the cases, and vocational personnel in the remaining 20 percent of the cases.

7. Guidelines were reported as being available in 80 percent of the school districts.

8. Guidelines were established by the following: 8 percent by the board; 7 percent by the chairman; 26 percent by school administration; 23 percent by local vocational administrator; 15 percent reported the State; and the remaining 21 percent said the vocational supervisor, teacher, or others.

9. An evaluation was asked for concerning the council's effectiveness in carrying out its five major functions. These functions were rated on a 1- to 4-point basis:

1=not helpful.
2=little help.
3=little help.
4=very helpful.

The following results were obtained by averaging the responses:

(*a*) Student recruitment, selection and placement	2. 2
(*b*) Assistance with instructional program	2. 8
(*c*) Assistance to teacher	2. 8
(*d*) Student recognition	2. 6
(*e*) Public relations	3. 4

A tabulation of returns reveals a percentage breakdown of program advisory committees organized in the following program areas:

	Percent
Vocational agriculture	66
Vocational homemaking	72
Distributive education	81
Health occupations	96
Vocational education for handicapped	84
Vocational office education	79
Coordinated Vocational—Academic Education (CVAE)	48
Vocational Industrial Education	76

The following questions were asked the districts regarding the advisory council for technical-vocational education in Texas:

1. How visible is the council with local administrators? Responses revealed that the council was highly visible with local vocational administrators and to a lesser extent with other local school administrators. A large number had participated in some activity of the council and/or were receiving the ACTVE NEWS.

2. How can the State advisory council be more helpful to technical-vocational education efforts in the State and/or your local community?

3. How could the State advisory council be more helpful in working with local council/committees?

Responses to questions 2 and 3 tended to address general needs and were not consistently delineated between the two questions; consequently, the responses will be consolidated. The response concerns are being listed in rank order of frequency mentioned.

1. A system to provide employment information for more realistic planning of local vocational programs.

2. Technical assistance to local administrators and councils/committees in developing more effective local advisory groups.

3. Lines of communication between State and local advisory committees in providing information about what other local committees are doing as well as developments and trends in vocational education and recognition of members of local committees.

4. Need public information materials on vocational education on statewide and local basis.

5 Provide members of the legislature with information and needs in the field of technical-vocational education and provide local committees with information about legislative developments.

6. That assistance be given in development of adult education programs and services.

7. That the Texas Education Agency enforce existing policies regarding local advisory councils/committees.

8. That the advisory council reports be made to State inservice education workshops of teachers, coordinators, and administrators.

9. That the advisory council provide an annual meeting for local advisory council chairmen and members, and meet with local councils throughout the year.

10. Provide evaluative criteria for local vocational programs.

11. Identification of priorities in technical-vocational education

12. Public information on utilization of advisory councils in order that local citizens may be more receptive to serving on the local level.

The Council concluded that, even though many local advisory council committees were organized and functioning, a large portion were either nonexistent or in name only, and that there was a need for a publication on effective organization and utilization of advisory councils/committees.

UTAH

During March of 1972, nine regional advisory committee leadership seminars were held throughout the State. The primary purpose of these meetings was to activate, inform, and motivate local advisory committees for the 40 school districts, the 88 high schools, and the postsecondary area vocational centers. In addition, it was emphasized that career education, preparation for one's life work, should be the central thrust of all education in the State.

The nine meetings covered southern Utah, eastern Utah, central Utah, northern Utah, and the Wasatch front between Provo and Ogden, which includes Sale Lake City. Some 520 persons attended and participated in the 3½ hour meetings which included dinner, formal presentations, brief talks by local district superintendents, business leaders, and local advisory committee chairmen. Near the end of the meetings the participants were divided into small groups of 8–10 for a "how to" discussion. Each group discussed two of the 12 topics. Examples of these topics are as follows:

1. How can the advisory committee assist in planning and implementing a new vocational program?

2. How can the advisory committee assist in job placement of students?

3. What should be the relationship of advisory committees with the institution president or director, school principals, and school teachers?

4. How can the advisory committee aid the vocational teacher in assuring the best possible instruction for the students?

Seventy percent of those who were invited attended the meetings. These were people who are in a position to make things happen and to bring about a change in education. These participants included district superintendents, local school board presidents, school principals, vocational directors, college presidents, higher education administrators, area center directors, business leaders, minority group leaders, PTA officers, Chamber of Commerce officials, State legislators, and others.

Employers are represented on advisory councils for the various schools. They are on the general vocational-technical education councils and on various craft and occupation councils. Some councils at the postsecondary institutions are very active, and a spot check survey of several of the chairmen indicated that this is the case, but some are just plain not doing anything. There is a tendency for the councils to be very active in getting some specific project moving and then drift into inactivity. At several high schools active, aggressive councils are currently pushing specific programs.

The advisory council contacted 50 employers in the Salt Lake area just over 1 year ago. These employers have some 32,000 employees representing about 8 percent of the total employees in the State. Those contacted varied in size from seven employees to several thousand and were from many areas, including health, manufacturing, banking, retailing, government, and public utilities.

A 30-minute interview was conducted with either the personnel manager or the person at the facility who did the hiring. A 26 item questionnaire was completed by the interviewer.

In response to a question as to whether or not the employers were familiar with the vocational-technical programs at the high schools and postsecondary vocational schools in the area, a majority of the employers did not feel they knew what was going on in the high schools and only 64 percent of them felt they were familiar with the programs at the postsecondary institutions.

Some 68 percent of the employers contacted indicated that they worked directly with schools in hiring employees, mostly the technical colleges and the private institutions. Some employers worked with individual high schools.

Several high schools, the two technical colleges, and other postsecondary schools work very closely with individual employers and employer groups in developing specific programs. There are several outstanding examples of this cooperation~~, but it~~ is not as widespread as it might be. Also, the State board personnel are involved with several individual employers and employer groups in running specific programs and developing long-range vocational-technical objectives.

The advisory council recommends that each local education agency secures community involvement in the local education system. An acceptable indication of community involvement will be the participation by community representatives in establishing the vocational education needs of the community in the validation of proposed programs designed to meet the needs that evolve, and in the use of advisory committees or other representative community groups to review critically the objectives and accomplishments of vocational education programs in the district and make written recommendations for program additions and/or improvements.

Thirty-four of the 40 local school districts have vocational education advisory committees. Each of these committees has a chairman with whom the State advisory council has been in contact. Several local committees are very active and are directly involved with the vocational programs within the district, but many committees are there in name only.

VERMONT

The council conducted a study of the use of area center advisory committees as required by State law and rules of the State department of education. It was found that each area center has established an advisory committee. Of the 11 committees surveyed, only one has met more than twice during the fiscal year 1972. All the committees have apparently attempted to coordinate to some extent such activities as school calendars, class schedules, orientation, grades, etcetera, between the area center and its sending schools. Very little activity is reported relative to sending recommendations to the area center school boards and having them reported back to the committees with action taken.

It appears that an area center with an active local administrative advisory committee is also an area that is providing for a more equal access of students into vocational programs.

VIRGINIA

In consideration of the potentially beneficial input by local advisory committees and councils, the State advisory council recommends that the director of the division of vocational education and his staff consider the advisability of continuing to encourage the establishment, evaluation, and wise use of citizen advisory committees on one or more of the following levels:

(a) Total vocational program on a school division-wide basis;

(b) For each special discipline on a division-wide basis;

(c) Special craft advisory committees on a division-wide basis;

(d) Either or both (b) and (c) on a single school basis.

WASHINGTON

Employer Viewpoints on Vocational Education

On the basis of a representative sample of employers throughout Washington State, it can be concluded that good work attitudes and habits is the single most important applicant characteristic. It is also true that employers feel that vocational programs should do more to encourage the development of such qualities in students.

All major employer groups—central office managers, line supervisors, and nonsupervisory employees—feel that more related on-the-job experience is an extremely important need in improving vocational preparation programs. Employers seem interested in assisting with this expansion of work experience as part of the training program, but many feel that some additional financing will be required to accommodate any substantial increases.

Insufficient funds and opposition by organized employee groups appear to be major barriers to expanding opportunities for work experience in preparatory vocational programs. Many employers seem willing to accept an additional responsibility for this on-the-job type training, but feel that they need some financial help to offset consequent losses in the production process.

While employers express considerable concern over the need to teach better work attitudes and habits, there seems to be some disagreement as to the most appropriate place for such training. The question also exists whether good work habits can even be taught in the conventional sense. Despite numerous differences of opinion in this area, good work attitudes and habits will have to be given greater attention in future programing and that both the school and job locations will have to be used in accomplishing this result.

All three employer groups—central office managers, line supervisors, nonsupervisory employees—feel that vocational education is an important part of the school program for all students. These same groups also support specific vocational programs as a desirable means of preparing young people for the working world.

PUERTO RICO

The advisory council strongly recommends that provisions be made with industry to have more VTE instructors and counselors attend summer sessions working in industry, as a definite way to acquaint themselves with the latest processes and working conditions of the new technology, and with the impact of industry for career awareness in students.

The professional growth of instructors in VTE programs is fostered mainly through university courses and inservice training. Last year, a very limited number of teachers (seven) participated in actual industrial training.

The sixth report of the National Advisory Council in relation to the training of guidance counselors—"counseling and guidance: a call for change"—recommends that the departments of education should require work experience outside of education for school counselors. Even the report suggests that individuals with rich background in business, industry and labor, should be infused into the counseling system.

TO WHAT EXTENT IS VOCATIONAL AND TECHNICAL EDUCATION APPROPRIATELY FUNDED?

DELAWARE

Money, certainly, is a problem. We need more of it, more quickly is the universal theme. Timing of the arrival of the money is almost as frustrating as the limitations in amount. Usually, and particularly when new, innovative programs are involved, it is the last day of June before an administrator can be assured of the funds necessary to initiate a program which should begin on the first day of July. In the case of Federal funding for such projects, it is much, much later. Unless the local school districts and/or the department of public instruction is willing to take the risk of immediate deficit spending, the new program seldom gets started on time.

The added responsibilities of hiring staff, ordering equipment, and scheduling often dissuade administrators from making needed change.

Once again, in order of priority, the teachers and administrators agree that more, and better, instructional equipment is needed in vocational education.

HAWAII

The Sixth legislature, 1971 regular session, appropriated $774,380 for the expansion of the three secondary level vocational education subprograms—preindustrial preparation, introduction to vocations program, and occupational skills program. These restructured vocational education offerings have been commended, not only within the State, but also by the U.S. Office of Education. In the council's evaluation report for fiscal year 1971, we noted that the State's fiscal situation would probably prevent the expenditure of funds for expansion of these programs. One consequence of the fiscal austerity has been to push the projected full implementation date of the programs from 1977 to 1980, provided funds are made available subsequently. The expansion of programs for fiscal year 1972 was limited to the extent the department could utilize its present allocations and departmental savings. It is not anticipated that the remainder of the State funds will be released for fiscal year 1973.

The available funding for the program in fiscal year 1972 was:

	Federal funds	State funds
Preindustrial preparation (disadvantaged)	$445,689	
Occupational skills (handicapped)	138,986	$27,066
Introduction to vocations		[1] 117,554

[1] Continuation of program implemented fiscal year 1971.

The department of education was able to serve the disadvantaged in 8 schools, the handicapped in 15 schools, and the regular students at 10 schools out of a total of 34 secondary schools in the State.

The delay in the release of Federal Vocational Education appropriations has severely hampered the operation of vocational programs on all community college campuses. The problem is a recurring one. The nature of Federal funding will probably always necessitate some delay and the problems will grow as appropriations under the Education Amendments of 1972 will be involved in addition to the vocational education appropriations. Both types of appropriations will support occupational education programs in the community colleges. Based on this reality, there is a need for the community colleges to develop a reimbursement mechanism which will enable the operation of programs with State funds until Federal funds are released.

ILLINOIS

During fiscal year 1972, $17,035,188 (72 percent) was distributed to secondary vocational programs, $5,378,966 (22 percent) was distributed to postsecondary vocational education programs, and $1,474,511 (6 percent) was distributed to adult vocational programs. These moneys must be used to supplement rather than supplant existing educational funds for vocational education. It is questionable whether these funds were used to maintain, expand or create new programs beyond the average educational costs in those institutions receiving moneys.

The division of vocational and technical education funding policy does not encourage, in fact, it discourages, getting the most from the least by rewarding expensive programs in preference to cheaper programs which promise the same benefits.

KANSAS

In the early part of 1972, the assistant commissioner for vocational education was informed by the United States Office of Education that Kansas could lose approximately $368,000 in Federal funds as a result of 1970 census data which show a drop in the number of 16–24-year-old persons in the State.

As a result, the State Board of Education imposed a moratorium on new programs until the financial picture was clarified. Some of the new programs planned were not implemented because of this action. Because of these limitations, the implementation of goals in fiscal year 1972 did not show any marked improvement over fiscal year 1971.

LOUISIANA

Funds under the vocational amendments of 1968 are made available on a proposal or project basis as detailed in the State plan. In the case of applications from local schools, they are acted upon by the vocational education State staff. In the case of State area vocational schools, recommendations are submitted by the State staff to the State board for official action. Criteria for rating proposals are spelled out in detail and appropriate rating scales have been developed.

The area vocational-technical schools are State-operated with funding almost entirely from State and Federal funds. In addition to Federal funds, the schools receive funds from State general fund appropriations. Each school prepares a budget which is presented to the State department of education and then to the State board of education. The director must then justify his request to the State budget office and legislative budget committee.

The process described above would seem to have certain weaknesses as compared with the development and submission of a budget based upon standards developed related to staff, programs, and enrollments. The present system lacks uniformity of standards that would usually be expected in a State system. While the case might be made for the merits of each director being in a position to lobby for his own budget, it does not appear that they have been very successful in gaining the State funding necessary to expand programs or facilities.

Analyzing the proportion of Federal, State, and local expenditures in Louisiana for vocational and technical education, it is noted that a substantial part of the program is Federally financed. In comparing Louisiana's effort with that of other States, it is seen that Louisiana ranks 49th in the ratio of State and local expenditures to Federal expenditures.

MARYLAND

To meet government funding schedules, the State department of education must submit its budget and plans to State authorities 2 years in advance, and to appropriate Federal agencies 1 year ahead of need. Given these time tables, there is little likelihood that a recommendation of the council concerning funds for fiscal year 1972 could be implemented before 1974, no matter how beneficial the program or how critical the need or situation it addresses.

MONTANA

Sources of funding for vocational education and training programs in Montana:

Local Funds

(a) County and municipal property taxes.

State Fund

(b) Educational foundation program.
(c) Ear-marked State appropriations.

Federal Funds

(d) Vocational Education Amendments of 1968.
(e) Department of Labor:
    (1) Manpower development and training.
    (2) Work incentive program.

(3) Concentrated employment program.
(4) On-job training program.
(5) Job opportunities in the business sector.

(f) Health, Education, and Welfare:
(1) Vocational rehabilitation.
(2) Office of educationary discretionary funds.

(g) Office of Economic Opportunity:
(1) Public service career program.
(2) Job Corps.

(h) Department of The Interior: (1) Bureau of Indian Affairs programs.

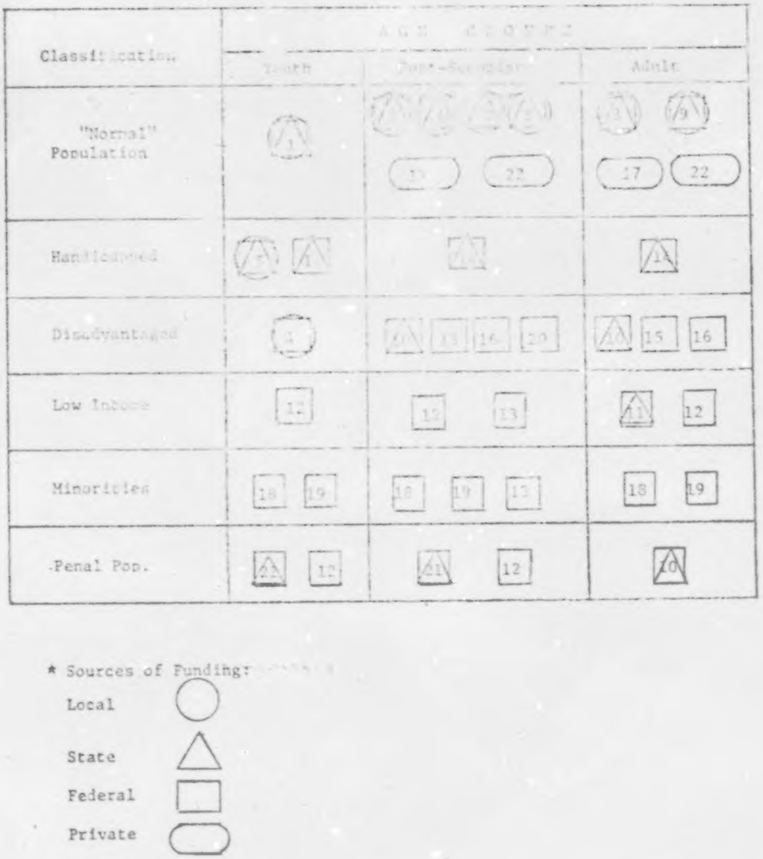
Private Funds

(i) Organized labor apprenticeship training.
(j) Tuition for private schools and colleges.

Vocational Training Programs in Montana, and Sources of their Funding:

Program	Sources of Funding							
1. Secondary Education	(a)	(b)	(c)	(d)				
2. Post-Secondary Vocational Center	(a)	(c)	(d)	(e_1)				
3. Adult Education	(a)	(c)	(d)					
4. Training for Disadvantaged	(a)	(d)	(e_1)	(e_2)	(e_3)			
5. Training for Handicapped	(a)	(b)	(c)	(d)	(e_1)	(e_2)	(e_3)	(
6. Community College Post-Secondary Vocational Training	(a)	(c)	(d)	(e_1)	(h_1)			
7. Bozeman Post-Secondary Vocational Training	(a)	(c)	(d)	(e_1)				
8. Northern Montana College Post-Secondary Vocational Education	(c)	(d)	(e_1)	(h_1)				
9. Adult programs at 2,6,7 (above)	(a)	(c)	(d)					
10. MDTA (Manpower Development)	(c)	(e_1)						
11. WIN (Work-Incentive)	(c)	(e_2)						
12. CEP (Concentrated Employment)	(e_3)							
13. PSC (Public Service Careers)	(g_1)							
14. Vocational Rehabilitation (Sheltered workshops, out-of-State schools)	(c)	(e_1)	(f_1)					
15. OJT (On-Job Training)	(e_4)							
16. JOBS (Job Opportunities in Business	(e_5)							
17. Apprenticeship Training	(i)							
18. Programs for Indians	(h_1)							
19. Mountain-Plains Regional Center (Glasgow Air Force Base)	(f_2)							
20. Job Corps Training Centers	(g_2)							
21. Pine Hills (School) Mountain View (School)	(c)	(d)						
22. Private Schools	(j)							

Montana Vocational Education and Training Programs, by Trainee Age Group, Classification, and Source of Funding*


Classification
AGE GROUPS
Youth
Post-Secondary
Adult
"Normal" Population
Handicapped
Disadvantaged
Low Income
Minorities
Penal Pop.
1
17
22
9
17
22
4
14
15
16
20
10
15
16
12
12
13
11
12
18
19
18
19
18
19
21
12
21
12
10
* Sources of Funding:
Local
State
Federal
Private

NEBRASKA

As vocational education expanded to meet the needs within the State, funding resources become much more critical. Federal sources provided an important influence and developed in the amounts anticipated. The amount of local funds also increased. Although a subcommittee of the council met with State authorities to request an increase in State funds, appropriations from State general funds have not kept pace with program needs and continue to be a major limiting factor in the growth and development of vocational education. Unless significant increases in appropriations are brought about in the next legislative session, local communities will still be forced to carry the major burden in the financing of vocational education.

NEW JERSEY

The legislation and regulations governing the administration of Federal funds under Public Law 90-576 stipulate that the funds will not be used to supplant local funding of vocational education. In addition, the funding criteria in New Jersey include both an assessment of the LEA's ability to pay, and the actual level of support for vocational education programs and activities. There is currently no mechanism which provides, at the State level, the actual expenditures of LEA's for vocational education. This type of information is available only from the county area vocational-technical schools. Thus, the division of vocational education currently has no way of determining whether or not funds under Public Law 90-576 are, in fact, supplanting local efforts, or of determining the extent and amount of financial support going to vocational programs and activities in the LEA's.

NEW MEXICO

The Office of Public School Finance, the fiscal authority for State-supported elementary, secondary, and vocational education, continues to allocate resources to the L.C.A.'s on a teacher-unit block basis. This ignores the effort of the State department of education to relate funding to program planning and development, and to establish equalized entitlements reflecting the "added cost factor" for vocational education programs.

The council recommends that the State board of education assume total fiscal responsibility for all its programs with distribution of such funds accomplished by means of an incentive-oriented system recognizing the objectives of vocational education.

UTAH

Public Law 90-576, the Vocational Education Amendments of 1968, states in section 123.(a) that any State desiring to receive Federal funds for vocational education under this act submit a State plan which meets the requirements of the act. It goes on to say that the commissioner of education shall approve the plan submitted by the State if he determines that the plan submitted for that year:

> Provides assurance that Federal funds made available under this part will be so used as to supplement, and to the extent practical, increase the amount of State and local funds that would, in the absence of such Federal funds, be made available for the uses set forth in Section 122.(a), so that all persons in all communities of the State will, as soon as possible, have ready access to vocational training suited to their needs, interests, and ability to benefit therefrom, and in no case supplant such State or local funds.

This is just one of 18 provisions.

In Utah, it is questionable whether or not the Federal money which is allocated by the State board for vocational education to the postsecondary institution is in compliance with this section.

During 1971-72 some $818,298 in Federal funds was distributed to the postsecondary institutions. In reviewing the budget requests and the State appropriations, it would seem that this Federal money was not used to supplement nor increase the amount of State and local funds that would be available. Just the opposite seems to be the case. The Federal funds were used to supplant State funds rather than supplement them, and it is very likely that postsecondary institutions would have received approximately the same money they actually received even if the Federal funds had not been available. The Federal funds are considered as a "dedicated credit" when the appropriations are allocated.

It is admitted that the Federal money added to the State appropriations makes more total money available, but as was stated above, it is questionable whether or not the above-mentioned provision (section 123.(a).11) is being complied with in the State of Utah.

The State board for vocational education, in distributing Federal vocational education funds, distributes 50 percent of the amount available for distribution to the secondary schools and 50 percent to the postsecondary institutions. The law provides that a minimum of 15 percent must go toward postsecondary education. Because secondary schools provide some $1.7 of local funds for every $1 of earmarked money, it may be that the State board for vocational education could allocate the Federal funds available for distribution on an 85 to 15 or 75 to 25 percent basis, with the larger percent going to the secondary schools and the smaller percent to the postsecondary schools to make better use of Federal money in promoting and encouraging vocational education.

VERMONT

Through visitations at schools and public meetings, it became apparent to council members that local administrators were using excessive cost as a deterrent to providing for student needs in vocational education.

The council studied figures from the last 4 years and arrived at the conclusion that generally no significant adjustments are made when share-time enrollment increases. Further, the council showed examples using average figures that, under existing State funding policies, vocational education should not result in additional cost to local districts.

TRUST TERRITORY

Vocational education programs cannot possibly be supported entirely by the funds coming from the Vocational Education Act of 1968. If vocational education is to achieve meaningful results in Micronesia, more money will have to be expended in this direction. These funds should come from the general educational budget. We recommend that, in addition to the budget categories of administration, elementary education, and secondary education, there would be added a separate category of vocational education.

TO WHAT EXTENT ARE VOCATIONAL AND TECHNICAL EDUCATION PROGRAM STUDENTS AT THE SECONDARY AND POSTSECONDARY LEVELS BEING PROVIDED JOB PLACEMENT SERVICES BY THEIR SCHOOLS' COOPERATIVE EDUCATION AND WORK-STUDY PROGRAMS, AS WELL AS FULL-TIME JOB PLACEMENT UPON GRADUATION?

ALABAMA

It was not possible to assess the degree to which institutions were involved in placement activities during the year. However, it is generally believed that postsecondary institutions are more effective in this matter than are secondary and preparatory adult programs.

A survey of 1,206 instructors at all levels reveals an average number of hours per year spent by instructors in employment placement activities as: 1.56 for secondary schools, 6:17 for postsecondary schools, and 1.02 hours for adult instructors.

ARIZONA

Of all the State objectives concerning vocational education in the postsecondary school, the most successful was the acceptance of the cooperative programs. The stated objective was that 11 postsecondary schools, involving 1,020 students, would implement cooperative programs. Because of the wide acceptance of cooperative education in the community college districts, 21 programs were begun. This increase in cooperative programs may be attributed, first, to the methods of placement and coordination utilized by the community colleges; and, second, to the "skills application" method of cooperative education which permits more teachers to work within cooperative programs.

As a result of research concerning all the vocational education programs throughout the State, cooperative education was found to be the most supported program in the State. Some of the cooperative programs in the State include the HERO program, the DE program, the ICE program, and the COE program. The basic cooperative work experience program used in all subject areas of vocational education was reported as being one of the best experiences available in vocational education, and an aspect of vocational education that should be expanded and developed in the future. The cooperative education program is one of the most positive ways to involve the business and manufacturing communities, from the world of work, with education. The gains from such a program include improved community relations, a student's better understanding of the work-a-day world, and the constant communication between schools and the community.

An example of how a school can meet the needs of its service area is the concept of the counselor-job developer. One community college in Arizona has hired such a person. The duties of this person include studying the students in the school, getting to know the individual student and his individual work habits and abilities, and then contacting the business community to locate jobs or help individual companies to develop jobs with the intention of placing a student in a job with that company. Once a student is placed with a company, the job developer then makes regular visits to the company to check the progress of the new student-worker. Progress of the student is noted and any discrepancy that the employer feels, or the new employee feels concerning his vocational education, is then transmitted to the instructor for a specific area. In this way, instruction stays current with the business world and all participants. The employer, the potential employee, and the vocational instructor all gain from this effort.

Definite support of placement services and job development services in all school districts is greatly needed. Only in this manner can the training of students in vocational skills be held accountable.

COLORADO

The school is seen as a central location where employers and trained persons can find information relative to their needs. Finding a job is the responsibility of the trained individual. To assist students, teachers, and school administrators in obtaining job availability—and demand—information, 17 job development specialists have been placed in the area vocational schools and community colleges.

DELAWARE

The Council recommends that each school district in the State be staffed with employment-placement officers at a ratio of not less than 500:1; that this allowance be beyond present unit appropriations; and that the Department of Labor and other agencies participate in the planning, development, and implementation of this service.

Since there is a new program, the superintendent of public instruction, his staff, and the chief school officers of the State encouraged the State board of education to establish this item as a top priority. As a result, the board earmarked Federal funds from the basic grant and cooperative education components of Public Law 90-576, and every school district in the State had at least one person, in most instances part-time, assigned as an employment-placement counselor.

IDAHO

The directors of the area vocational schools inform the advisory council that job placement poses no problem. At the present time, when students achieve the required level of competence, employment is waiting.

Job placement service, to a great extent, is made by personal contact of administrators, instructors, and students with prospective employers. Well trained, properly motivated people are in demand.

The pattern of job placement on the secondary level is somewhat the same as above. Many secondary students involved in co-op programs remain with their employers after completion of the training period.

ILLINOIS

Several postsecondary schools are doing a good job of placing graduates in jobs, but others are less effective. At the secondary level, this activity has been done mainly by vocational teachers and cooperative work coordinators almost on an individual basis. The council has strongly urged job placement assistance at the secondary level.

Area center directors report that placement is not difficult since employers are demanding well-trained and properly motivated people.

KANSAS

Reimbursement policies of the division of vocational education tend to force educational institutions to assume responsibility for the placement of their graduates.

A level of 75 percent placement must be maintained by postsecondary programs and a 50 percent level for secondary programs. Failure to meet these standards results in a penalty in the amount of reimbursement received by the institution for the particular program.

In addition, the Division of Vocational Education is placing programs with low placement on probation. This can lead to an eventual phaseout of the programs which are least productive in terms of placement.

MARYLAND

There is legitimate concern at every level except the community college, about the propriety of educational institutions assuming a job placement responsibility. The council recommends that the State should hold local systems responsible for maintaining an effective student placement program, or else arrange with other agencies to provide placement services.

MASSACHUSETTS

The council finds most schools are earnestly trying to place in jobs as many of their vocational program graduates as possible. The effort is there, but the statistics are neither satisfactory, valid, nor reliable. Nevertheless, they are presented as reported to the U.S. Office of Education. Of some 15,000 graduates from secondary, postsecondary, and adult education programs in 1971, approximately 9,000, 60 percent, are known to have been employed full time in the field, or related field, for which they were trained.

MICHIGAN

The council feels that in-school vocational activities should be related to the world which a person encounters after he leaves school, and that a comprehensive placement program will help insure that students are receiving a relevant education. Placement in jobs should be the continuing responsibility of the school counselor or some other professional person specifically hired to find meaningful employment for students.

The council feels so strongly about job placement being the responsibility of school districts that it recommends that all occupational training be coordinated with job placement of students, and that the level of reimbursement for vocational programs in the schools be tied to some extent to the success of job placement programs.

MISSISSIPPI

Vocational education has not as yet taken a leadership role in guaranteeing job placement of its graduates. In the MDTA training programs the Employment Security Commission has the direct responsibility for job placement of the trainees. The responsibility for assistance in job placement of the regular vocational graduates has primarily been given to the vocational guidance departments.

Greater emphasis will be placed on this aspect of the program in fiscal year 1973. Assistance has always been given the graduates, when possible, by the vocational staff in the respective complexes and centers. For the most part, up until recently, the instructional staff has played the predominant role in this endeavor in an indirect way. However, at this time there is no plan for guaranteeing the vocational students jobs after training is completed.

MISSOURI

Job placement activities in many schools appear to be a very haphazard exercise. However, one outstanding project, funded by the Research Coordinating Unit in five institutions—the agribusiness job placement project—has been sufficiently successful to warrant replication in other occupational areas.

MONTANA

According to the results of a simple survey, the Council reports the odds are that a student leaving high school either by graduation or dropping out receives little assistance in job placement. High schools in Montana basically are still geared to the academic preparation of students not only in curriculum but also in guidance and counseling.

At the postsecondary level full-time counselors serve in a placement capacity and work closely with the employment agency, prospective employers and other agencies and groups in assisting the student in seeking initial employment.

Parents and students believe that the high schools should take responsibility for job placement of high school graduates according to a recent survey.

The number of cooperative education programs has grown since 1970 (175, involving 95 employers) to 345, involving an estimated 210 employers in 1972.

NEBRASKA

Secondary and postsecondary schools differ widely in accepting the responsibility for placement of students. Evaluation of the placement effort of the technical community colleges indicates they are fulfilling that responsibility in commendable fashion. Students seeking employment usually are offered several job opportunities. Actual job placement is a definite result of the school's effort.

The situation is quite different in the secondary schools. Often there is no one specifically assigned to job placement. In many instances those responsible are not provided coordination time to accomplish the job. The council believes that the secondary schools should have a basic responsibility in job placement of students and should be provided the personnel and finances to carry out that responsibility.

NEVADA

The advisory council certifies that job placement information is generally available to students, and in some local school districts extensive programs of career guidance are evident. Job placement information is available through guidance programs offered by each of the State's three community colleges. None of the State's public educational institutions provide direct job placement services with the exception of Southern Nevada Manpower Training Center, Las Vegas, which maintains such services in cooperation with the Department of Employment Security.

Some private educational institutions, for example, cosmetology schools, provide comprehensive job placement information and services to enrollees.

NEW YORK

In regard to job placement, the survey team found that classroom teachers were most frequently the ones who performed the placement function, if it was performed at all. The team did not report on the extent of job placement activities, except to say that the vocational school teachers who did perform a placement function tended to place only the best students, feeling that the reputation of their schools depends on the quality of the students who were recommended for placement. The New York State Employment Service activities relative to the interviewed schools indicated a need for a much closer working relationship with the counselors and teachers in order that students would be placed in jobs for which they were receiving training.

Followup activities, like placement activities, appear to be practically nonexistent in the big cities. Reasons cited are the high cost and lack of personnel for such activities, the difficulty of tracking graduates, and the idea that followup activities serve no real purpose since the results would not influence decisions as to whether to alter or discontinue existing programs. Availability of funding and the recommendations of advisory committees form the basis of such decisions.

In summary, the Arthur D. Little survey team concluded that occupational preparation must include an effective guidance and counseling and placement/followup aspect for the total educational system. To move toward this goal, for the cities, the job placement and followup function should be carried out by full-time personnel with advice and cooperation of the faculty, as well as supporting clerical staff and an appraisal of the counseling/guidance caseload in order that group counseling and up-to-date information on careers, schools offering programs and articulation matters be available to every student. In the BOCES, the need was evident for staff to perform the job placement/followup function, as well as the coordination with feeder schools so that all students desiring occupational education could be scheduled.

NORTH CAROLINA

Some schools and institutions do a good job of placing graduates. They do much less well in placing those who fail to complete a full program. We believe they should accept more responsibility for those who complete as much as one quarter of work.

NORTH DAKOTA

Some educational institutions are slow to recognize their responsibility in job placement and followup of graduates. Efforts are being increased at the postsecondary institutions. A project has been funded in the Bismark school district with part C funds that directs itself to the development of a placement and followup model.

OKLAHOMA

Vocational education is available to more than 90 percent of the State population, although at the secondary level the major school counselor emphasis remains directed at the college-bound.

Only about 45 percent of secondary and postsecondary vocational-technical course completers in Oklahoma are available for employment. Of that number, 73 percent are placed on jobs related to their training.

The State council recommends that greater emphasis be placed on the establishment of placement procedures for graduates of vocational and technical programs. The State department agrees, and has included as objectives for fiscal year 1973:

a. To provide 50 percent of the completing area vocational and technical school and junior college students, and 25 percent of the completing comprehensive high school students, with placement information and services;

b. To identify and recruit 10 percent of the college dropouts into postsecondary vocational and technical education programs.

The State department action is based on its belief that the low unemployment rate among vocational graduates (6 percent) as against the high unemployment rate (18 percent) of nonvocational program graduates demonstrates vividly the value of vocational education and training.

The council strongly recommends the use of proficiency ratings for all vocational and technical course graduates. The tests would rate proficiency level of individuals in a particular skill in key areas of specialization, and place this information on a plastic, wallet-size card. The rating system, to be devised in consultation with advisory committees drawn from the proper occupations, should equate an individual's skill level so that employers can intelligently and equitably place the graduates on the job. The State department of vocational and technical education agrees with this recommendation in principle, but points out the need for redesigning and standardizing curricula and training programs in order to develop a useful and meaningful proficiency testing system.

A study made in 1972 by the State department resulted in a recommendation to establish a 2-year pilot project on placement of vocational students, with centers at Oklahoma City and Tulsa. The council has urged the State board to strongly support the proposal.

PENNSYLVANIA

It is evident that secondary level graduates are currently in the least favorable position in regard to finding work for which they were prepared, as compared to other levels. As a consequence, it is necessary to prevent this slippage as much as possible, so that graduates do not lose their skills by working at lower levels of utilization. The costs to the State and industry can be inordinately high in terms of lost tax revenues, retraining costs, and an inefficient labor force. To help remedy what appears to be a badly defective aspect of an impersonal labor market, the vocational education system should assume greater responsibility for student preparation for the world of work through improved and expanded programs for work exploration, orientation, guidance and counseling, job/applicant matching, and placement. Improved methods of student selection and recruitment must also be developed.

SOUTH CAROLINA

Within the past year or two considerable emphasis on job placement as a responsibility of vocational education programs has evolved. The technical education programs, on the other hand, have provided this function for several years. Since one criterion for the establishment of a program in TEC is to prove that job opportunities exist for graduates of such a program, the administrators of the program usually know precisely where these jobs exist. This greatly facilitates the matter of job placement.

The vocational education programs normally operate with a maximum of one to two administrative-type personnel. Considerably more than half of the area vocational centers have no administrator or noninstructional professional personnel other than the center director. Consequently, the director is immersed in administration and operation of the programs and the many details that must be handled on a day-to-day basis. In a few of the larger area vocational centers, where there has been an opportunity to employ a counselor or other professional personnel not directly assigned to teaching, there has been increased emphasis on assisting with job placement. The limiting factor has not been a lack of desire to engage in this activity, but a lack of resources and a shortage of personnel who can work within this area.

Job placement is perceived as an important and related function of the area vocational centers and technical education centers which provides dividends in several different ways. For one, it assures that a larger percentage of those persons trained within an occupational area can put their newly-acquired skills to work as participating citizens and wage-earning taxpayers. Perhaps equally as important, however, it provides direct liaison between the center and the employing firms which provides feedback to the center regarding the effectiveness of the programs, any apparent inadequacies in the curriculum, and similar information. Further, it precludes that the instruction offered in a given program will become obsolete or inadequate, thus ensuring that the overall quality of instruction is maintained at the highest possible level. If these advantages are to accrue to the area vocational centers, additional resources must be provided to accomplish this function.

SOUTH DAKOTA

Placement of graduates of the State's five area vocational technical schools has been good, with records ranging from a low of 74 percent to 90 percent of job placement of graduates.

TENNESSEE

The placement of students who have completed occupational programs varies with the training area—from 64 percent who completed vocational agriculture programs to 60 percent of those students completing business and office programs.

TEXAS

Several postsecondary institutions do a superb job in this area, while others are much less effective. However, the down-turn in the economy in recent months has prompted many institutions to increase their activity in this area.

At the secondary levels, most of these activities have been done by vocational teachers and cooperative training coordinators. However, a demonstration program is in its second year in one of the medium-sized high schools in the State for a complete placement and followup program. Several other schools have put forth similar or partial efforts.

UTAH

The odds are that a student leaving one of the 88 high schools in Utah, either as a dropout or a graduate, has had little or no assistance in locating employment. The high schools are geared to guide and prepare most students for college—mostly in an academic program—and little attention is paid toward job placement.

In several high schools, teachers accept the responsibility to aid students in locating part-time jobs during school and full-time employment during the summer and after graduation. Many teachers do an excellent service in this area, but they are the exception.

[redacted]

Three high schools had full-time placement counselors during the 1970-71 school year. These were project success high schools. During the 1971-72 school year, four more of the 88 high schools added recognized job placement counselors. (The title used is usually career guidance counselor, and job placement is a primary function.)

In general, school administrators have not accepted it as their responsibility to really help students locate suitable employment, either as they drop out, or as they graduate. Funds to accomplish this are a problem.

In the needs assessment[1] conducted by the planning staff at the State board, many high school counselors and district vocational directors were interviewed. Not one of them stated that he was satisfied with the current status of job placement. They stated: It is the opinion of most counselors and vocational directors that college preparation students generally receive adequate counseling in terms of getting into an institution of higher learning, but vocational education students have to beat the bushes for jobs.

The same study reports that only 6 percent of employed high school graduates who had taken vocational courses stated that they had received help from their school in securing their present jobs.

At the postsecondary level, the two universities and the two 4-year colleges have had placement programs for students for several years. The two technical colleges also accept it as a responsibility to strive to place students who complete their programs. The Utah Technical College at Salt Lake City has an employee designated as a placement counselor, and he is running a satisfactory program. The Utah Technical College at Provo does not have a placement director as such and the responsibility to place students is shared between several administrators and the teachers. There is evidence that Utah Technical College at Provo is able to place more than 80 percent of its students in jobs. Placements at Utah Technical College at Salt Lake are also high.

The three 2-year colleges have not yet fully accepted the responsibility for placement of students on jobs.

VIRGINIA

On the conviction that initial job placement and follow-up of vocational graduates, and school leavers having employment potential, are integral parts of occupational preparations, the State advisory council strongly recommends that serious consideration be given to the employment of a competent person whose primary responsibility is in placement and follow-up, and that he be employed on a 12-month tenure for providing these services for all vocational education programs.

High on the council concerns in its second report was the continuing problem for administrative recognition that job placement and periodic follow-up is an integral part of occupational preparation. It is axiomatic that job performance is the whole purpose of job preparation and the ultimate values of the process are realized only in the proper placement and evaluation of the training program reflected by job performance.

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[1] From draft copy of needs assessment.

WYOMING

At the time this report was prepared, data concerning job placement of graduates and their evaluation of the programs was not available for 1971–72. Information on job placement was collected during September of each year as it related to June graduates. Overall, the completion rate of occupational programs appeared to be good. However, follow-up information concerning placement should be made available at the end of the year's program; thus, State and local level program decisions could be efficiently expedited.

Secondary and postsecondary schools differed widely in accepting the responsibility of student placement. Evaluation of the placement efforts of the private technical schools and community colleges indicated they are fulfilling that responsibility in commendable fashion. Students seeking employment usually are offered several job opportunities. Actual job placement is a definite result of the school's effort.

The situation is quite different in the secondary schools. Often there is no one specifically assigned to job placement; in many instances those responsible are not provided coordination time to accomplish the task. The council recommends that the postsecondary schools and community colleges accept responsibility in job placement of students.

Table III cited information on follow-up of program completion in secondary occupational education programs for 1971–72 school year. Table IV cited information on follow-up of program completion in post-secondary occupational education programs for the 1971–72 school year.

TRUST TERRITORY

There is a need for more cooperative education programs which would allow high school students to become involved in the world of work. Teachers should be trained in methods of locating job stations with the Government and private sector and in developing programs of related instruction at the school which would be closely integrated with the cooperative education work experience.

To What Extent Are Private Schools Being Utilized by the Public Education System for Offering Vocational and Technical Education?

ARIZONA

Arizona has a significant number of private schools, which are regulated by the Arizona State board of private technical and business schools. Some fine schools with excellent programs exist, and their existence rests entirely upon the reputation they gain from placing their students in the world of work. Private schools or private proprietary schools are excellent models of vocational education in action and the use of these institutes with public funds is to be encouraged. Many of the problems that are encountered by private schools can well serve as lessons for public education, emphasizing their importance in the total spectrum of education.

CALIFORNIA

The council found that enrollments in private trade schools and vocational programs were not taken into consideration in the 1971–72 State plan. A survey of 959 such schools revealed an enrollment of 194,602 students. This data has been made available for inclusion in the 1972–73 plan.

ILLINOIS

There are 665 private trade schools in Illinois serving approximately 600,000 students through resident, extension and home study activity. But there is little planning and use made of private proprietary schools in the formulation of State goals and objectives for vocational and technical education.

A study of the private trade schools has been commissioned by the council. Titled, "Private Proprietary Vocational and Technical School Involvement in Vocational Education in Illinois", it should be completed late in 1972.

MICHIGAN

The council strongly stresses the importance of private schools to the total system of vocational education in Michigan, and recommends that every person of high school age should have the option of attending a private school vocational program at public expense if the public schools cannot provide the service sought by the student.

NEW JERSEY

Education systems resources, under contract with the council, conducted an in-depth study of proprietary vocational schools and occupational education in the private nonprofit schools of New Jersey. Findings and recommendations are included in the council's annual report.

Proprietary schools in New Jersey, which provided occupational training to some 18,000 students during 1970–71, are largely excluded from consideration by the public education sector in the planning and operation of vocational programs. The gist of the recommendations made by ESR is that, if New Jersey is to meet the challenge of making available occupational training for all its people who could benefit thereby, it must overcome its aversion to "education for profit" and include proprietary schools as an integral component in the statewide system for occupational education.

The nearly 300,000 students enrolled in nonprofit private schools in New Jersey are generally not exposed to the vocational training opportunities that have become a major and essential component of the public school system. The major occupational offerings are in the business area, primarily typing and secretarial skills in girls' schools.

NEW MEXICO

The council recommends that the State department of education take action to expand occupational education and training through contractual agreements with State-accredited private schools offering programs not otherwise available.

NORTH CAROLINA

In some areas of the State, secondary and postsecondary institutions work closely together in planning and coordination. In other areas this appears to be lacking—at least to the level desired. The community college system institutions recognize certain "territory" for private schools with similar type programs. A few community college institutions contract for services with private schools. There is room for further improvement. It is the hope of the council that planning called for under the Educational Amendments of 1972 will result in a more coordinated training effort.

NORTH DAKOTA

The goals of the 1972 State plan take into account private trade school offerings. At times, students are referred to private schools by the State office.

PENNSYLVANIA

At present, private vocational education information is limited to those licensed schools authorized to issue associate degrees. During the required annual evaluation of vocational education in the Commonwealth, it is necessary to estimate the private business, trade, and technical schools' completion output in order to establish relevancy between total vocational output of all sectors and labor market needs.

The goals and recommendations of the final evaluation report for the 1969–70 school year suggested greater use of private schools (business, trade, and technical) under contract to replace low-enrollment secondary vocational programs, and to provide vocational training for potential students located in geographical areas not having ready access to an area vocational-technical school.

It appears from an analysis of the great variety of occupational offerings in the estimated 290 private schools, that there is an especially valuable resource in the unique programs not commonly found in the public sector. For example, there are programs in the performing arts, radio and television broadcasting, photography, carpet installation, mortuary science, tractor trailer driving, and heavy equipment operation, modeling, tailoring, physical therapy, and law enforcement that should have appeal to young people seeking a career and not able to find such opportunity in the public schools or unable to finance attendance at a private school.

Responses by the BVTE contained in the appendix to the 1972–73 State plan indicate the department of education would be required to review the policies and certification requirements and initiate legislative action to follow the recommendation, and it was taken under advisement. In one response it was noted that legislative action was required, but in another regarding programs for disadvantaged and potential dropouts, it was stated that private schools, under contract to the public schools, were already being used in several instances.

TENNESSEE

There was little evidence of any meaningful relationship between the State and private schools, primarily because private schools have demonstrated a reluctance to divulge statistical information and plans to the State. Also, apparently no particular effort has been made to involve them in State planning.

TEXAS

During 1971 legislation was passed to regulate private schools, and the proprietary school commission is chaired by a member of this council, and the program is administered in the department of occupational education and technology.

The Texas Association of Proprietary Schools was formed during the last year to unify all business, vocational, technical, and other proprietary schools. During the first convention of TAPS, one-half day was given to the State director of vocational education and his staff to discuss the administration of the Proprietary School Act and recent legislation providing for contracting between public and proprietary schools.

UTAH

There are many fine private and proprietary schools in Utah, especially at the postsecondary level. Private school administrators have not really been included in program planning and needs assessments and, in general, student output data from the private sector has not been really considered in planning activities.

WYOMING

The private technical colleges made available occupational education opportunities to people at the postsecondary and adult levels. The full-time training programs were designed for individuals to gain the skill and technical knowledge needed to enter the occupations and to progress speedily and effectively to the fully trained or journeyman level.

During fiscal year 1972, 20 private technical institutions provided occupational education opportunities for an estimated 500 students.

To What Extent Is Vocational Education Serving the Needs of Disadvantaged and Handicapped Individuals?

ARIZONA

The two areas of special needs, disadvantaged vocational education and handicapped vocational education, are high priority areas in vocational education in Arizona. Efforts have been made to identify those individuals who should be provided vocational rehabilitation services for reasons of mental, physical, or social disabilities which constitute a substantial employment handicap. In order to meet the needs of these individuals, studies have been performed by many agencies within the State such as the welfare department, the employment security commission, the division of vocational rehabilitation, and the division of vocational education, as well as others, such as the migrant opportunity program and the community action agency, to identify individuals, study their needs, and to provide some means to prepare them for suitable employment. After studying the needs of individuals for vocational education, people involved have determined objectives, and appropriate programs to serve the needs identified have been instituted. Examples of these special need programs include the Arizona WIN training prgram, and Arizona State prison program, the needletrades program, the Arizona State industrial school at Fort Grant, and the Mesa High School system drop-out and drug addicted youth program. Major programs in vocational education for the handicapped person in Arizona can be found in the Arizona particular planning area and seek funding for those needs. Currently in Arizona, there are 28 active programs that function in the area of manpower planning councils (AMPC). These councils are part of a system that is designed to coordinate all manpower programs and the ultimate delivery of manpower services to each of the manpower districts. They operate through locally autonomous committees that are answerable to the highest elected officials, or mayors, in the area. The manpower development and training function of the division of vocational education is part of the membership of each area manpower planning council. This membership is the only input that vocational education has to these councils.

The manpower development and training programs that have been offered in education have been an excellent educational experiment, but they have not been allowed to remain as flexible as they could be because of the restrictions placed on them by Federal funding. In order for the MDT programs to be able to serve the needs of the people as they were intended to do, they need to become more flexible in their educational approaches. These approaches should work toward attitude adjustment as well as skill training programs. Perhaps one of the problems of MDT programs is that they are operated on a short-term basis, outside traditional public education. Because of their short-lived curriculum, little time is allowed to evaluate fully the impact of the skill training upon students. Perhaps there is a way to overcome the funding restrictions that exist and to start programs that would incorporate skill training, attitude change, GED programs when needed, job placement and extensive follow-up and counseling after the person has been placed on the job.

A variety of adult vocational education courses exist throughout the state that receive little or no recognition. These courses are designed to upgrade or train on a single course basis adults in a specific area not covered in usual program requirements. For example, on many Indian reservations in Arizona a number of single courses exist which include classroom instruction coupled with work experience and on-the-job training that would not otherwise be available to the Indian population, such as housing construction or house wiring. These courses are usually administered through a local education agency adjacent to the reservation. This type of single course funding in adult vocational education supplies a much-needed flexibility in the training of adult individuals.

The Gila River career center, located on the Gila River Indian Reservation, uses this type of funding. This center provides for the residents of the Indian reservation and for other disadvantaged people training and a chance to become qualified tradesmen in many of the vocational technical areas. All of the classes offered at the career center are oriented toward a job entry level.

The Arizona State prison vocational education program is offered in conjunction with Central Arizona College, the division of vocational rehabilitation, the division of vocational education, and the department of corrections. This program is an excellent example of the multi-agency working agreements which involve various levels of government within the State. The plus factors of this program include good instruction and equipment, and the recruitment process for the identification of vocational students is a workable one. This vocational education program at Arizona State prison has led to the creation of further types of education at the prison. It is now possible to receive an associate of arts degree from Central Arizona College in not only a vocational subject but also a liberal arts subject as well and there is also available GED preparatory courses that help inmates receive GED's. The major concern connected with this program is that placement and follow-up is not adequate. The placement and follow-up programs are currently being restudied by the four agencies. Legislative support for additional facilities and program costs are also needed.

Another quality program is the WIN program, an excellent example of multi-agency involvement to serve the welfare ADC, aid to dependent children, mothers, and families. This program has good instruction with many agencies actively providing supporting services. The major concern connected with this program is that the Talmadge amendments allow little or no time for training of students prior to their on-the-job training. A legislative change in the Talmadge amendment could be a solution to this concern.

Another special needs program is the School for the Deaf and Blind in Tucson. This school is an excellent example of what vocational education can offer to handicapped individuals. An outstanding class in printing and color separation exists in this school which has good facilities and instruction. A major concern connected with this program is that follow-up placement procedures and services after completion of the 12th grade need to be improved.

A fourth program functioning under special needs that was recommended for the regional award for vocational education, is the neighborhood youth corps program, a summer program for dropouts which is operated in Tucson. An excellent example of agency cooperation, this program offers summer work experiences, counseling, and career opportunities all provided by the Federal installation at Davis Monthan Air Force Base.

A program for dropouts is offered at Fort Grant, another example of multiple youths of Arizona. The Fort Grant experiment in youthful offender vocational education has been highly successful. The only problem that has been encountered in vocational education at this institution is the placement and adequate follow-up. Legislative support for additional facilities and for the program costs is needed here, as it is in all correctional vocational institutions in the State.

Also in adult disadvantaged vocational education are the needle trades adult preparatory programs which are generally in operation under the administration of a nearby community college. Programs offer vocational education to hundreds of disadvantaged, unemployed, underemployed, and unproductive welfare recipients. Needle trades skills centers are established by the Department of Education, Division of Vocational Education, and are administered jointly by a local community college or school district and the State department of education. Last year 1,220 students were enrolled at various skill centers around the State. Of that enrollment, 1,015 were trained and 922 were placed on jobs. Although more than 90 percent of those trained were placed, the job retention percentage of those placed is approximately 30 percent, which is typical of all vocational institutions that deal in the training of the disadvantaged in Arizona. After the training has taken place and a person has been placed on the job, in 2 or 3 weeks that person is again out of work. This fact again points out the problem that is inherent in adult vocational education, designed for the disadvantaged, that is, the problem of work attitude.

CALIFORNIA

The council prepared a position paper stating its interpretation of, analysis, and recommendations concerning programs for the disadvantaged. It was determined that a clear, comprehensive analysis of the administration of the programs for the disadvantaged was impossible because no criteria for identifying such students existed, and there was no way to relate programs in geographic areas to one another. It was also noted that little progress had been made to encourage school districts to combine their efforts and resources to identify and better serve the disadvantaged.

While some progress has been made in resolving these issues, the council is not satisfied with the funding level of individual projects and quality of programs for the disadvantaged.

The council is planning to fund a research project dealing with its concerns about programs for the disadvantaged. In the meantime, the council has made a series of recommendations which call for effective interaction with students, lay citizens, and professionals to participate in the planning and evaluation of programs for the disadvantaged.

CONNECTICUT

The numbers of disadvantaged and handicapped and the intent of the State board of education to meet their needs in the occupational areas as expressed in the Connecticut State plan for the administration of vocational education, 1971–72, showed the high degree of need on the one hand and repeated and firm statements of commitment to meet that need. Thus, the philosophical attitude as stated was highly positive. However, this was within the framework of a broader philosophy in which initiative and responsibility for meeting student needs is and has been traditionally viewed as resting with the local school district (except for the State system of technical high schools).

The State board has informed local school districts of the availability of funds for these program's purposes. However, the administrative mechanisms, including program priorities, reflect the philosophy that the board responds to local initiative rather than establishing priorities by categorizing the person to be served, and the school districts in which maximum need exists, and then providing technical assistance and financial incentive to the local school district to meet the priorities established by the State board. Further, the present fiscal policies for the distribution of funds to support programs provide minimum incentive to the local districts to develop proposals.

In terms of the effectiveness of delivery of service, as of July 1, 1971, the department of education had available for distribution for the handicapped and disadvantaged a total of $1,750,169, and, as of July 30, 1972, had unexpended funds remaining of $875,388—more than 50 percent. With the funds available as of July 1, 1972, to be used during the fiscal year ending June 30, 1973, added to that remaining unspent for fiscal year 1972, the department of education has available $2,132,363. As of October 31, 1972, of these funds approximately $1 million had been approved for expenditure by local school districts, and the department of correction for programs for the disadvantaged and handicapped. A further $571,762 were in a category termed pending with many local school districts unsure at this time, 20 percent through the school year, as to whether or not they will receive Federal funding to help support a program to which they have already made local commitment.

FLORIDA

This year's evaluation of vocational education for the handicapped examined the provisions in the 1968 Vocational Education Amendments and the policies in the State plan for vocation education, the types of handicapped served, kinds of services and programs provided, types of training provided, extramural agencies that aid vocational-technical education in providing occupational training, and the extent to which there is coordination among the various agencies that serve handicapped persons.

A State council for the education and rehabilitation of handicapped with appropriate representation has been organized and is working to coordinate activities of agencies that provide services to the handicapped. In addition to State-level coordination, this council through its various members is attempting to effectuate coordination and cooperation at the county level through county councils for the handicapped. Consequently, well planned, comprehensive programs are available in many counties. However, over one-half of the counties do not have county coordinating councils, and a recent survey showed that only 28 of the 67 counties utilized vocational instructional units for teaching the handicapped and 30 counties did not request fiscal year 1972–73 Federal vocational funds for the handicapped which are administered by the Florida Department of Education.

Generally, personnel at all levels appeared well trained and concerned with providing services for the handicapped and vocational educators seem to work well together, and to establish and maintain cooperative relationships with other agencies. The mentally retarded, deaf, and blind received extensive consideration. The emotionally disturbed and socially maladjusted are the groups receiving the least vocational training from the schools.

The general finding was that intensive effort is being made to serve the handicapped; however, present services do not adequately meet the needs of the handicapped population in Florida. Local agencies must exert additional effort to identify the handicapped, determine their needs, and request the services and resources to meet the identified needs. Consulting services of vocational educators are available from the State and area offices for planning and development of services for the handicapped, and should be utilized to the fullest extent possible by local agencies.

HAWAII

The Department of Education was able to serve the disadvantaged in 8 schools, the handicapped in 15 schools, and the regular students at 10 schools out of a total of 34 secondary schools in the State.

The implications of the nonrelease of expansion funds in fiscal year 1972 is indicated by the following:

	Number served	Percent	Number to have been served with expansion funds	Percent	Present target population size
Preindustrial preparation	907	(27)	1,200	(35)	3,387
Occupational skills	444	(23)	655	(34)	1,909
Introduction to vacations	11,674	(35)	12,681	(39)	32,879

[redacted]

While significant strides have been made on the secondary level through the occupational skills program in serving the needs of the handicapped, the program should be expanded throughout the State as soon as feasible. In fiscal year 1972, all Oahu high schools with identified mentally retarded educables were served by the occupational skills program. Kapaa High School in Kauai County was the only high school outside Oahu with the program. On the postsecondary level, funds earmarked for serving handicapped persons in regular ongoing occupational programs were primarily in the form of tutorial and interpreter services. In June, 1972, a pilot intensive food service training program for deaf and hard-of-hearing adults was held at Kapiolani Community College, but there is no assurance that such efforts will be ongoing

ILLINOIS

The provision in Public Law 90–576 that 10 percent of the part B appropriations be expended for programs for the handicapped, while difficult to administer, has been met by the division of vocational and technical education. But it has not provided initiative in serving a substantial number of handicapped students..

A recent study completed for the advisory council projects some 2,500 to 75,000 handicapped persons could be wheelchair students in vocational programs in the State. While newly constructed schools are, for the most part, making provision for wheelchair students, almost all old schools have not. This inaction is in violation of a State law requiring removal of architectual barriers to the handicapped. Consequently, very few wheelchair students are enrolled in vocational education programs.

While worthwhole programs for the disadvantaged are being designed and implemented by the State board, in some instances in cooperation with other agencies, problems of racism, business thinking, union attitudes, changing youth attitudes, unemployment and underemployment in the ghetto areas, are having a negative effect on the services the schools are attempting to provide.

KANSAS

Academically Disadvantaged

This target group was delimited by using two sets of data taken from the 1970 census.

The data taken from educational characteristics of the population in Kansas show that 27.2 percent of the 18- to 24-year-old group (272,199) were not high school graduates. These data provided 74,038 academically disadvantaged persons.

Of the group 25 years of age or older, 24.3 percent had only 1 year of high school or less. Because many persons in the category were housewives, over 65, or otherwise not potential employees, this 24.3 percent was applied to the civilian labor force over 25 years of age, as a more realistic figure than the total age group. This provided 173,817 academically disadvantaged persons in this category in Kansas.

Data from the Census show that 26.5 percent of the males and 20.6 percent of the females with less than college education had received vocational training. On this basis, it was assumed that about 20 percent of the academically handicapped would have received from vocational education and would not be candidates for more.

Subtracting this group from the total gave 198,000 academically disadvantaged persons in Kansas over 18 years of age.

Economically Disadvantaged

This group was delimited by taking the number of white persons with incomes below the poverty level in Kansas and subtracting those who were not potential members of the civilian labor force.

One of the problems of trying to define disadvantaged groups is the overlapping of categories. Those who are academically disadvantaged are often the same persons that are economically and culturally disadvantaged. To offset this problem, the white population below the poverty level was used as a measure of the economically disadvantaged and the nonwhite population below the poverty level was used as a measure of the culturally disadvantaged.

There were 241,576 white persons in Kansas with incomes below the poverty level. From this total was subtracted 27.8 percent of this group who were 65 years of age or older and 87 percent of 71,004 children under 18 years of age. This provided a total of approximately 112,647 economically disadvantaged persons between the ages of 16 and 65.

Culturally Disadvantaged

The nonwhite population with incomes below the poverty level was taken as the measure of the culturally disadvantaged. Here again, it was assumed that those over 65 and those under 16 should not be included in the target population. There were 38,071 nonwhite persons below the poverty level in Kansas. Subtracting those over 65 and those under 16 years of age gives a total of 15,820 culturally disadvantaged persons.

Based on this analysis these data yield the following groups of disadvantaged persons in Kansas:

Academically	198,000
Economically	112,647
Culturally	15,820
Total	326,467

This total of 326,467 disadvantaged persons represents approximately 14.5 percent of the total population in Kansas.

This population of disadvantaged persons represents a goal for the total educational system. It is not reasonable to assume that all of these persons are interested in vocational education or would avail themselves of it if programs were offered.

Because vocational education is concerned with earning a living, the economically disadvantaged is probably the group with which vocational education planners should be primarily interested while the academically and cultural disadvantaged should be the primary responsibility of those involved in basic education, GED development and adult education.

If the economically disadvantaged are used as a target group, the projected enrollment of 11,450 in secondary, post-secondary, and adult programs, and the 2,565 students trained in manpower programs represent 12.44 percent of the economically disadvantaged persons in Kansas.

Handicapped Students

Data furnished by the U.S. Office of Education indicate that about 12.7 percent of the school-age population are handicapped. The special education section of the State department of education estimates that this percentage of handicapped is higher at the elementary level, and decreases as the student advances through the educational system. On this basis, it was assumed that 10 percent was reasonable to use in grades 10 through 14. In 1971–72 141,487 students were enrolled in these grades in Kansas. Ten percent of this enrollment if 14,148 of these students who were handicapped in some manner.

The State plan for vocational education in 1972 projects an enrollment of 5,920 handicapped students in secondary, post-secondary, and adult programs. This projected enrollment is approximately 42 percent of the estimated number of handicapped students.

KENTUCKY

Priorities have been set and were aimed at serving:

1. Disadvantaged persons;
2. Handicapped persons;
3. Persons in economically depressed areas, and
4. The unemployed, with particular reference to the unemployed youth.

Enrollment in special programs for the disadvantaged and handicapped have multiplied threefold from 4,832 in 1971, to 15,087 in 1972. No projections were made for the disadvantaged and handicapped in the State plan fiscal year 1971–72.

LOUISIANA

Louisiana has met its State plan's objectives for serving the disadvantaged and handicapped. While table IV–10 below reveals a large jump over the national average in numbers of disadvantaged being served, the number of handicapped students served through vocational education is at an alarmingly small percentage. The survery team had neither the time nor the resources to make an extensive investigation into this crucial area, but it is suggested a further survey, perhaps by the Louisiana State advisory board on vocational education, be undertaken to determine whether the needs of this interested group are indeed being met.

TABLE IV-10.—PERCENT OF DISADVANTAGED AND HANDICAPPED STUDENTS IN TOTAL VOCATIONAL EDUCATION ENROLLMENTS, 1970-71

	Percent of disadvantaged students in total vocational education	Percent of handicapped students in total vocational education
U.S. mean	13.3	1.9
Louisiana	31.9	0.6

Source: "Learning a Living Across the Nations, Project Baseline, Baseline Year, 1970-71," Dr. Arthur M. Lee, project director, Northern Arizona University, Flagstaff, Ariz., prepared for the National Advisory Council on Vocational Education, November 1972, Government Printing Office, Washington, D.C.

MARYLAND

Small increases were recorded in the numbers of disadvantaged and handicapped students enrolled in vocational technical programs. Enrollment of disadvantaged students in 1971 was 20,982; in 1972 it was 32,683. Enrollment of handicapped students in 1971 was 7,658; in 1972 it was 7,908. While the State plan designated priority attention to these target groups, specific goals were not explicitly stated.

MASSACHUSETTS

Because for every student enrolled in the regional vocational-technical schools, two and one-half are turned away due to lack of space, the school officials tend to select only those students who will be most successful. This in turn tends to discriminate against the handicapped and disadvantaged in favor of students without handicaps.

In terms of enrollment in program offerings for the disadvantaged and handicapped, the State came close to meeting its stated goals of 10 percent. However, in terms of specific occupational areas, there was considerable variation from −71 percent in home economics to +26.7 percent in agriculture. Only in office occupations did actual enrollments meet State plan goals.

MICHIGAN

The council was pleased to note that the department of education has employed a consultant to evaluate the effectiveness of special needs projects aimed at the disadvantaged and the handicapped. During 1971-72 there were 137 projects funded for the disadvantaged at an average cost of $29,819; the average cost per student was $349. For the handicapped, 108 projects funded at an average cost of $27,820; the average cost per student was $79.

The council has many questions about the identification of disadvantaged and handicapped people, and plans a comprehensive study during 1973 of the extent to which the needs for occupational education of these individuals is being met in Michigan.

MISSISSIPPI

Disadvantaged

In 1971 we had 83 percent of the disadvantaged population in Mississippi enrolled in vocational education, or 7,357. The enrollment of disadvantaged students increased to 8,221 in fiscal year

1972, or 92 percent of the estimated 890,000 disadvantaged population of the State. Even though this percentage did not increase as much as was projected in the State plan, it is felt that satisfactory progress was made.

We are cognizant of the many disadvantaged people in our State who have not been reached as yet. However, a concerted effort is being made to meet the needs of as many of the disadvantaged population as possible. In keeping with our philosophy in attempting to meet the needs of the disadvantaged population, 306 programs were projected for fiscal year 1972. The year ended with 225 programs actually operating. The reason for the discrepancy is due to the fact that in fiscal year 1971 programs operated exceeded programs planned. Therefore, more caution than was necessary was exercised in program planning for fiscal year 1972. To better meet the needs of more of the disadvantaged population in our State, it will require considerably more money, as well as better qualified personnel and more time. Although seminars and workshops were held to provide inservice training of the existing staff, the problem still exists. To accomplish our objectives we must have more and better qualified teachers.

Handicapped

It was estimated in 1971 that there were 67,000 handicapped people in Mississippi. We had enrolled in vocational training 2,490 of the total population or 37 percent. In fiscal year 1972, 2,548 students were enrolled, or 39 percent of the total population. For fiscal year 1972, 110 programs were projected. Only 86 programs actually materialized. This is due possibly to the difficulty experienced in getting enough of the handicapped together for a class. Offering instruction to meet the needs of handicapped people was relatively new for vocational educators. This also is a factor that possibly explains why projections were not met. A continuous effort will be maintained to meet the needs of the handicapped. In addition to the allied enterprises or sheltered workshops that were operated in cooperation with vocational rehabilitation, 3 postsecondary schools and 14 secondary schools operated programs for the handicapped. The postsecondary schools were: Mississippi State Prison, Parchman; Itawamba Junior College, Fulton; and Jones Junior College, Ellisville. The secondary schools were: West Point Junior High School; Gulfport East High School; Jackson Public Schools; Humphreys County Vocational Training Center; Jackson County Schools for Exceptional Children; Leflore County High School; David Elementary School, Leflore County; Greenwood High School; West Bolivar Elementary School; Houston Elementary School; East Junior High School, Harrison County; Tupelo Vocational Technical Center; Newton High School; and Hawkins Middle School, Forest.

Several of these elementary schools offered two to five programs for handicapped students. A considerable amount of the training that was given to handicapped young people was, of necessity, prevocational or occupational orientation.

Two new facilities have been constructed for instructional programs for the handicapped. One of these facilities is located at the Itawamba Junior College Branch in Tupelo. This facility was occupied by students during fiscal year 1972. The other new facility was constructed at Jones Junior College at Ellisville. The facility was not ready for occupancy during fiscal year 1972. However, plans are to offer six different instructional areas during fiscal year 1973.

We are cognizant of the many handicapped people that have not been reached. However, vocational education is striving untiringly to plan for, identify, and provide facilities, instructors, programs, and activities to reach a larger portion of the handicapped each fiscal year.

MISSOURI

The council commends the State department of education for having conducted its census of disadvantaged and handicapped students, and following through with schools having any vocational program to provide for the needs of these people. The council urges that strong consideration be given to a payment schedule for integration of the disadvantaged and handicapped into regular programs of vocational education without the necessity of separate classes or facilities.

MONTANA

The fiscal year 1972 State plan projected that the enrollment of disadvantaged students in vocational education would increase from 6 percent in 1970 to 9.4 percent in 1972. This goal was exceeded slightly (9.6 percent) but only 4,754 disadvantaged students are enrolled in all vocational education programs and not all of these are receiving special services to assist them in their education. Table one shows the comparison:

TABLE I.—THE DISADVANTAGED

	1970 Enrollments	1972 Projections	1972 Actual
Percentage disadvantaged population enrolled in vocational education	6.0	9.4	[1] 9.6
Number disadvantaged enrolled in cooperative programs	30	75	30
Total number instructional programs	42	55	[2] 35
Total number disadvantaged enrolled in vocational education work study	70	140	178

[1] 4,754 students.

[2] Program emphasis changed; an attempt is being made to integrate the disadvantaged into the regular program and give them special help rather than segregating them into special programs.

The council noted that different governmental agencies, using varying identification criteria for the disadvantaged, estimate the number of disadvantaged individuals from a low of 27,000 to a high of 49,000.

NEBRASKA

Growth and expansion of vocational services to disadvantaged students have been emphasized by those responsible for this development. Especially significant was the activity by the Kearney Center for Vocational Edcation in response to council recommendation "f" under State priority 2 on occupational teacher preparation.

Enrollment in the summer teacher education seminar for working with the disadvantaged and handicapped totalled 76 teachers. There were 295 teachers for the disadvantaged and handicapped in 77 communities during the past year, an increase of 59 teachers and 19 new communities. Student enrollment in the disadvantaged and handicapped programs increased from 4,111 to 5,801, an increase of 1,690 students.

NEVADA

The stated objective, to attain 272 enrollments in vocational programs for the handicapped during fiscal year 1972 was not fully met. However, 94 enrollments in vocational programs for the handicapped were attained, and 475 handicapped students (Washoe and Clark Counties' combined statistics) received occupational information through this program.

The stated objective, to operate four handicapped programs during fiscal year 1972, was not fully met. However, three programs were operated, representing a 75 percent operation attainment, upon original projections.

The stated objective, to employ 14 vocational teachers for handicapped students during fiscal year 1972, was not fully met. However, 10 persons were employed in such programs, including four vocational teachers and six guidance and counseling personnel.

NEW JERSEY

The State department of education reported the following information concerning disadvantaged and handicapped students enrolled and completing vocational programs:

	Enrollments		Completions	
	Objective	Actual	Objective	Actual
Disadvantaged	8,559	9,257	6,012	1,513
Prevocational	(4,585)	(5,819)	(3,277)	([1])
Handicapped	3,548	3,297	426	274
Prevocational	(3,171)	(2,504)	(381)	([1])

[1] Not available.

While enrollment objectives were achieved, the completions, as well as total numbers involved, must be considered disappointing.

NEW MEXICO

While statistics show approximately 50 percent of all vocational education enrollees in New Mexico to be disadvantaged, empirical evidence confirms that little program expansion has taken place to meet the unique needs of the disadvantaged youth and adult population. An even greater need exists for special programs for the handicapped.

While significant progress was made during 1972 in the number of programs conducted for the disadvantaged, only 36 percent of the disadvantaged population was served—an increase of 3 percent over the previous year. However, no increase was noted in the percentage of disadvantaged students involved in cooperative education and work study programs.

The number of programs for the handicapped population remained static at 22, serving 1,279 individuals for a gain of 1.1 percent over 1971. However, the percentage involved in cooperative education decreased, and none were involved in work-study programs.

The council believes that the State has not been able to design and implement an adequate vocational education program because of its inability to locate qualified teachers. Furthermore, a concerted effort must be made to consolidate the planning and implementation efforts of vocational education, special education, vocational rehabilitation, local rehabilitation facilities and associations representing the handicapped to achieve statewide goals and objectives.

RHODE ISLAND

The number of handicapped students enrolled in vocational education increased to 392 during the past year. A total of $163,921 was spent in this category with Federal funds comprising $133,488 of that amount.

To serve the disadvantaged 29 programs were sponsored, an increase of 11 over the previous year. Included in this effort were programs for potential and actual dropouts, juvenile delinquents, and members of racial minority groups. Approximately 300 more students were enrolled in such programs as compared with fiscal 1971, with about 70 percent of the total disadvantaged population served coming from the central cities.

It should be noted that the Office of vocational-technical education in the department of education includes in its definition of disadvantaged persons those who, because of academic, siocioeconomic, cultural, or other handicaps, are prevented from succeeding in vocational education programs designed for the general school population. This definition allows greater latitude in serving individuals with special needs, but if other Federal programs are any guide, the term disadvantaged is usually intended to have socioeconomic and minority group connotation. Adopting a wide definition of the term could prevent the necessary focus on problems of poverty and prejudice.

Allied to programs for the disadvantaged is the question of minority group representation in professional positions. The department continued to seek black professionals for its own staff as well as those of the area facilities. This effort was not successful, however, even though openings were publicized extensively and frequent personal contacts were made.

One special group did not realize notable increases in vocational education programs, however. The adult correctional institution in Cranston has an inmate population of close to 300. These men are at various educational levels, but most of them could benefit from vocational counseling and preparation in connection with their own personal rehabilitation. The State's correctional system has been analyzed by special consultants and task forces. In every case the need for vocational rehabilitation is emphasized. But a breakthrough has not yet occurred. A cooperative effort of the new department of corrections, formed in July of 1972, and the State department of education offer an opportunity for this to happen.

SOUTH CAROLINA

Data on numbers of disadvantaged and handicapped in the State plan for fiscal year 1971–72 (fiscal year 1972) refer only to families on welfare in the instance of disadvantaged; to the total population without regard to age group in the case of handicapped persons. The interpretation of the information on the disadvantaged youth would read that of 4,700 persons to be served during fiscal year 1972, 100 percent would participate, rather than giving some indication of the percentage of those who need the program who would be served. Also, no data are given regarding the need by persons in correctional institutions, returning veterans, or others who should be reached through vocational education.

SOUTH DAKOTA

During the public hearings held by the council, the problem of Indians vis-a-vis vocational education was discussed at some length. It was suggested that the State take responsibility for establishing vocational schools on reservations. Bringing Indian youth to off-reservation vocational schools presents many problems, since housing for Indian students is difficult to arrange. White society is generally reluctant to house Indian students in their boarding homes.

TENNESSEE

Approximately 13 percent of the students enrolled in the area vocational-technical schools are classified as disadvantaged students, and 2 percent are classified as handicapped. At the secondary level, 26 percent were considered disadvantaged, and 5 percent were considered to be handicapped. There has been little opportunity for real growth in meeting the needs of these individuals since present resources are not adequate for much more than that which is required to maintain the basic programs.

Special emphasis by placement coordinators is being given in the programs that are conducted for the disadvantaged and handicapped, resulting in a very high percentage of placement of students.

TEXAS

The programs for which the adult and continuing education division is responsible are primarily the result of programs from Federal initiation and funding. The State legislature has not favorably considered legislation and appropriations for adults in Texas. Also, because of the dichotomy in the funding pattern, there is also a lack of coordination of adult education activities in the State. The administration of adult programs will be found in a variety of settings at local levels with varying amounts of visibility and support.

Some of the target groups for which ongoing and dependable programs must be provided if Texas is to effectively utilize its total human resources, are:

(1) Adults who are deficient in basic education of a sufficient level to enter occupational training;

(2) Adults who do not have adequate skills to participate in the labor force and secure adequate compensation to support themselves;

(3) Adults who must be retrained or upgraded to remain in the work force, or to progress in the job market;

(4) Adult women who must assume family support responsibilities but do not have skills or their skills are obsolete;

(5) A special responsibility to veterans as they attempt to redirect their skills into the civilian job market; and

(6) Adults who have handicapping conditions but can be rehabilitated to become useful and productive citizens.

A special responsibility for adult education administrators in the State is the linkage between the education community and many agencies and groups that seek to develop human resources through agencies such as the Texas Rehabilitation Commission, the Texas Employment Commission, the department of public welfare, department of mental health and mental retardation, and other agencies and groups.

An effective adult education system is essential to the proper functioning of an overall educational system. This is especially true if we are to expect to have mobility within our job market and a labor force that is responsible to the needs of economic development in the State. Such a commitment to adult education is also essential if a unified education system is really going to serve all citizens.

Programs for the disadvantaged initiated in Texas during the 1964–65 school year on a pilot basis with 25 teachers enrolling 938 students, and during 1971–72 there were 650 teachers enrolling nearly 20,000 students. Plans for 1972–73 call for a further increase of 140 teachers and 4,000 students. Even with this commendable growth, it is estimated that only about 25 percent of those students that could benefit from the program are presently in programs.

Students in grade levels 7–12 are served in the program that is called coordinated vocational academic education (CVAE). These units are allocated under the minimum foundation education program. However, some local school districts report constraints in providing adequate facilities.

The council, in visiting several CVAE programs on the local level, was not only impressed by the progress of the students, but also with the attitudes of school faculty and administration in realizing that perhaps some students could be helped in regular programs through utilization of some of the concepts used in CVAE.

The council voiced a concern in the 1971 report that in moving the CVAE programs under the regular supervision of appropriate occupational areas that the real purposes and needs of the programs and individuals not be lost. (See page 8 of 1971 report and recommendations IX (10), page 29 of this report.)

Progress in programs for the handicapped has been much slower than that of the program for the disadvantaged, as it relates to vocational education. State legislation, with exentsive provisions for special education, was passed 4 years ago, and the Texas Rehabilitation Commission was reorganized and strengthened, and all have combined to make a substantial impact on the needs in the area of the handicapped. There is a special liaison staffing arrangement between vocational education, special education, and rehabilitation services.

In July 1971, the State board of education approved the transfer of vocational educational programs for the handicapped to the minimum foundation program. This transfer is done after they have been established through contract.

For 1971–72 there were 3,000 students enrolled in 161 programs under the minimum foundation, and an additional 2,000 students in 110 contracted programs.

The council expresses the same concern about handicapped administration and supervision as expressed above about the disadvantaged. Reference is made to table II, page 51 of this report, to get the relationship of disadvantaged (CVAE) and handicapped programs to the remainder of the vocational programs developed during the last 55 years.

VIRGINIA

The identification and counseling of disadvantaged persons are carried on through local educational programs by administrative, guidance, and vocational personnel.

These persons are identified as those having academic, socioeconomic, cultural, or other handicaps that prevent them from succeeding in regular vocational education programs designed for persons without such handicaps. This includes those persons whose needs result from poverty, neglect, delinquency, or cultural or linguistic isolation from the community at large, but not mentally or physically handicapped persons. Comment: The disadvantaged student constitutes a relatively new identification as a special needs grouping—being statistically identified in State reporting first in the 1969–70 releases.

During the year under review and the 2 previous years, 1969–70 and 1970–71, the identification of the disadvantaged has grown statewide from 11,556 to 44,733, and to 45,909, or a growth in identification by 297.27 percent.

The council is especially concerned that identification of all such persons be achieved and that there be sufficient Federal and State funding to fully meet the Commonwealth's obligation and commitment.

It is noteworthy that, because of improved diagnoses and a greater concern, the numbers of handicapped served increased from 3,400 in fiscal year 1971 to 5,658 in fiscal year 1972, an increase of 2,258 persons, or a percentage increase of 66.4 percent. This is a commendable record of achievement in the 2 years for which special set-aside funds have been designated for service to this segment of the school enrollment.

It is alleged that unsatisfactory results have been accomplished with the funds designated for vocational education for the handicapped in the public schools. There is concern that State appropriations are insufficient for the matching of funds which localities are expected to provide. Greater State appropriations, it is believed, would eliminate the practice of over-using vocational rehabilitation funds and services for a program that is essentially the responsibility of the public schools.

The council recommends that this practice be given serious study.

WYOMING

In determining the extent goals were met for disadvantaged and handicapped, the council investigated quantitative and qualitative data. The quantitative data, indicating only 578 disadvantaged and 282 handicapped students, evidenced that a small percentage of these groups were being served. The total number of students in the State at the secondary level who qualified under the definition of disadvantaged was 2,150 and 1,327 students would be in the handicapped category.

Several variables influenced the validity of quantitative data. The council determined that they were:

(1) Schools were not identifying students in categories of disadvantaged and handicapped.

(2) Schools were not providing separate occupational programs for these groups. Accordingly, many schools were enrolling disadvantaged and handicapped students in regular ongoing occupational programs.

During fiscal year 1972, the State department of education staff showed a greater awareness to the needs of these special groups. The department personnel planned and developed increased numbers of programs in supportive services. Planning activities occurred between the division of occupational education and the division of exceptional children, developing coordination of funding and programming.

Specific programs were implemented at the following schools:

Wyoming Industrial Institute for Boys (Worland)—seven occupational education programs for 65 delinquent boys.

Wyoming Girls' School (Sheridan)—five business and office occupations programs for 55 delinquent girls.

A summer "follow-through" program for secondary school dropouts in Cody, Wyo. for 25 students.

A cooperative disadvantaged and dropout program at Rawlins High School for 20 students.

A law enforcement training program, central Wyoming Community College, Riverton for 20 Indian students.

Licensed practical nursing for disadvantaged students, Laramie for 15 students.

Comprehensiveness of planning for disadvantaged groups was evidenced through development of learning centers at seven community colleges, the Wind River Indian Reservation, and model cities neighborhoods. Furthermore, occupational programs were provided at the institutions located at Worland, Sheridan, Evanston, Rawlins, Lander, and Thermopolis.

Adult basic education provided a sequential program of instruction designed to: (1) Eliminate the inability of adults in need of basic education to read and write English; (2) to raise substantially the educational level of such adults with a view toward making them less likely to become dependent on others; (3) to improve their ability to benefit from some occupational training; (4) to increase their opportunities for more productive and profitable employment; and (5) to make them better able to meet their adult responsibilities.

In Wyoming the adult basic education program was for adults 16 years of age and older who were functioning less than the 8th grade level. The program was designed to increase their ability to benefit from occupational training, thus increasing their opportunities for more productive and profitable employment.

Approximately 1,054 adults, participating in 45 programs located in 12 communities across the State, were served by adult basic education in Wyoming for fiscal year 1972.

PUERTO RICO

There was a marked inconsistency, on the plus side, between what was planned and what was achieved, at all levels, for the disadvantaged persons. In the secondary level there were 29 courses planned, while the trades and industry program produced 251 courses. In the postsecondary level, there were 144 courses planned, but they produced 599 courses.

APPENDIX

OUTLINE FOR STATE REPORTS TO CONGRESS

(1) Introduction: In this section please include any brief general introductory comments which you wish to make concerning the growth of vocational education within your State within the last ten years and include a listing of total enrollments for fiscal years 1963, 1968, 1972, and 1977 (projected). These enrollments should include all persons in vocational education courses within your State whether these courses are funded from Federal, State or local resources.

(2) Public Law 90-576 "Part B—State Vocational Education Programs": The remainder of this outline will follow the format used in authorizing programs under the Vocational Education Act as amended in 1968. This section will be concerned with the uses of the basic State grants provided under Part B of that Act.

(*a*) *Job Training Enrollments.*—In this subsection please list the job training enrollments by job training area and by high school, post-high school, and adult for fiscal years 1963, 1968, 1972, and 1977 (projected). These enrollments should include all persons enrolled in courses provided with Federal funds under Part B.

(*b*) *General Description.*—Include a general description of the growth and development in Federal job training programs for youth and adults, especially highlighting the initiation or expansion of courses in newer job fields.

(*c*) *Post-Secondary Courses.*—Include a breakdown of the post-high school enrollments listed in "*a*" above according to enrollments in junior and community colleges, technical institutes, area vocational schools, and other post-secondary institutions. Provide a brief description of the progress made in post-secondary enrollments within the last ten years.

(*d*) *Disadvantaged Students.*—Include a listing of enrollments by regular and special needs programs for fiscal years 1963, 1968, 1972, and 1977 (projected). Please provide a brief description of the progress made within your State.

(*e*) *Handicapped Students.*—Include a listing of enrollments by regular and special needs programs for fiscal years 1963, 1968, 1972, and 1977 (projected). Please provide a brief description of the progress made within your State.

(*f*) *Adults.*—Provide a breakdown of the adult enrollment listed in "*a*" above according to those in programs who are unemployed and in need of job training and those who are presently employed and in need of job retraining. How many of these adults are enrolled in preparatory training programs and how many are in regular training programs using these Part B funds? How do these enrollments compare with the number of adults enrolled in such courses using Federal manpower funds? If possible, provide this comparison by enrollments for fiscal years 1963, 1968, 1972, and 1977 (projected).

(*g*) *Financing.*—(i) Provide a detailed description of the method used for the distribution of Part B funds among local educational agencies and other agencies within your State. Please include in this description the manner of considering the relative fiscal abilities of local educational agencies and the relative differences in costs among such agencies as required by law. Also explain your State's use of variable matching of local funds for Federal funds.

(ii) Provide a detailed breakdown on the dollar amounts and percentages of Federal and State funds (listed separately) going to the cities within your State which have a population in excess of 250,000 and show how these allocations compare with their relative percentages of the State's population. If there is a wide disparity between these allocations and the relative percentages of population, please explain the disparity. Also provide the same breakdown for the poorest rural areas within your State and provide the same explanation if a disparity exists between population and Federal and State expenditures.

(*h*) *Construction and Equipment.*—List investments for construction and equipment from Federal, State, and local sources (listed separately) for fiscal 1963 through 1968, 1969 through 1972, 1973 through 1977 (projected). Give a brief description of progress.

(3) Public Law 90-576—Other Federal Programs: This section will be concerned with the categorical programs authorized under the Vocational Education Act as amended in 1968.

(*a*) *Exemplary Programs and Projects.*—List programs and numbers of persons served under this section (this may be your career education programs) for fiscal years 1968, 1972, and 1977 (projected). Please give a brief description of progress.

(*b*) *Residential Vocational Education.*—Please indicate the number of centers needed and a brief description of the importance of funding of residential centers for your State.

(*c*) *Consumer and Homemaking.*—List enrollments in consumer and homemaking education for secondary and adult for fiscal years 1963, 1968, 1972, and 1977 (projected). Also show a breakdown in each of these enrollments for gainful employment and also for the disadvantaged and the handicapped. Please give a brief description of progress with emphasis upon consumer education and programming for family life in economically depressed areas.[1]

(*d*) *Cooperative Vocational Education.*—List the number of persons served under programs made possible by this section. (This may include only a part of your cooperative education effort. If so, please indicate.) Include enrollments for fiscal years 1963, 1968, 1972, and 1977 (projected). Please give a brief description of progress.

(*e*) *Work Study Programs.*—List numbers of students served for fiscal years 1963, 1968, 1972, and 1977 (projected). Please provide a brief description of value of services.

(*f*) *Research and Training.*—Give a description of the value of Part C funds for research and development in your State. Please provide brief summaries of one or two important research projects.

(4) State Advisory Council: Provide your estimation of the most significant contributions of your State Advisory Council within the last five years. List the actions which you have taken in response to their recommendations.

(5) Summary and Recommendations: Provide a summary of the progress made within your State with Federal funds for vocational education within the last ten years and provide the Subcommittee with recommendations based upon your experiences for improvements in Federal programs. If you care to, you may also include specific comments on the Better Schools Act of 1973 (special revenue sharing for education) and the Administration's plans for reorganization and regionalization of the U.S. Office of Education.

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[1] See revised chart which follows Outline for Information requested on Consumer Homemaking and Occupational Home Economics.

c. Consumer Homemaking and Occupational Home Economics

Home Economics: List enrollments in consumer homemaking and occupational home economics for secondary and adult for fiscal years 1963, 1968, 1972, and 1977 (projected) as shown in chart below. Please give a brief description of the progress made with an emphasis upon consumer education and programming for family life in economically depressed areas.

CONSUMER HOMEMAKING AND OCCUPATIONAL HOME ECONOMICS

ENROLLMENTS

	1962-3 (F.Y. 63)	1967-8 (F.Y. 68)		1971-72 (F.Y. 72)					
				Part F Consumer Homemaking			Part B Occupational Home Economics		
	Vocational Home Economics	Home Economics Useful Employment (Homemaking	Home Economics Gainful Employment.	Total	Disadvantaged	Handicapped	Total	Disadvantaged	Hand.
Secondary									
Adult									
Total									